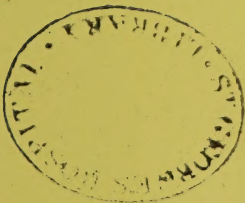


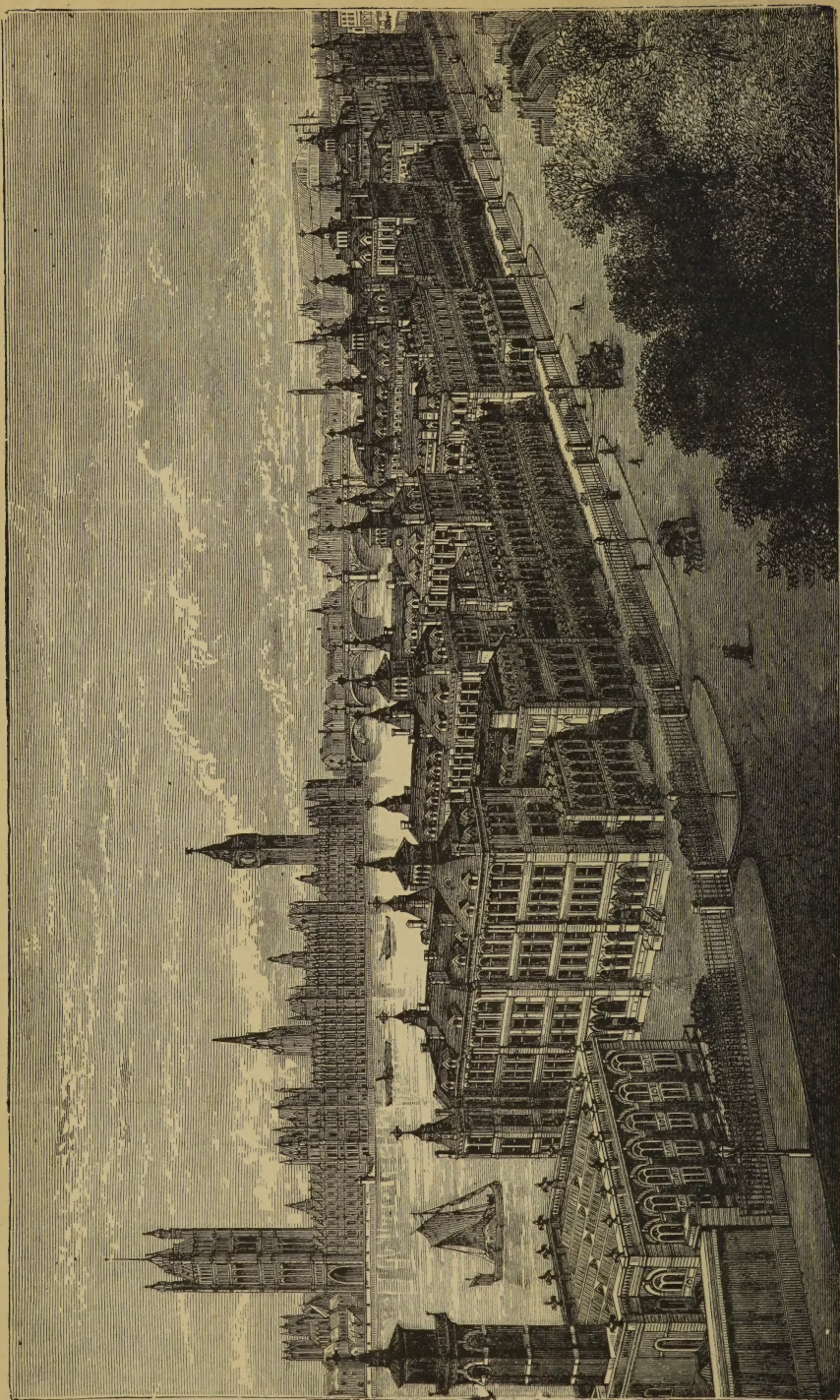
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DR. HECTOR MACKENZIE AND MR. G. H. MAKINS.



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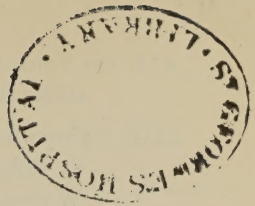
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MEDICAL REPORT.

1898.

By A. E. RUSSELL, M.D., B.S.LOND., M.R.C.S., L.R.C.P.;

MEDICAL REGISTRAR.

TABLE I.—*General Statement of Medical and Surgical Patients.*

				Males.	Females.	Total.	
Number of patients in Hospital, Jan. 1st, 1898	...	...	...	217	167	384	
" " " Dec. 31st, 1898	...	...	...	209	185	394	
" " discharged or died during 1898 :							
				Males.	Females.	Total.	Rate per cent.
Cured	...	...	2244	1543	3787	61.67	
Relieved	...	...	685	647	1332	21.69	
Unrelieved or other causes	...	...	284	205	489	7.96	
Died	...	...	344	188	532	8.66	
Total	...	...	3557	2583	6140		
Average number of days of each medical patient's stay in hospital—30.09.							
" " surgical							21.6.

TABLE II.—*General Medical Statement.*

Number of Medical Beds ¹...	...	...	...	...	200	
Number of patients in Medical Wards, Jan. 1st, 1898	...	...	...	Males.	Females.	Total.
" " admitted during the year 1898	...	...	...	1112	704	1816
Total	...	...	...	1190	765	1955
" " in Medical Wards, Dec. 31st, 1898	...	...	...	87	65	152
" " treated to a termination during 1898	...	...	...	1103	700	1803
" " discharged or died during 1898 :						
				Males.	Females.	Total.
Cured	...	...	...	464	334	798
Relieved	...	...	...	274	181	455
Unrelieved or other causes	...	...	...	168	77	245
Died	...	...	...	197	108	305
Total	...	...	...	1103	700	1803
Average number of days of each patient's stay in hospital—30.09.						

¹ This does not include 29 beds in Adelaide Ward, the statistics of which are given in the Report of the In-patient Department for the Diseases of Women.

TABLE III.—*General*

DISEASE.	Number of cases.			Age.							Duration of residence.									
	Total.	M.	F.	Under 5	5-10	-20	-30	-40	-50	-60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mths. 1-2	Mths. 2-4	Mths. 4-6	Mths. 6-9	Mths. 9-12	Above 1
I. GENERAL DISEASES.																				
Measles	25	15	10	16	2	...	6	...	1	...	...	2	5	15	3	...	...	...	...	...
Scarlet fever	4	1	3	2	...	...	2	...	...	...	...	...	1	...	1	2	...	...	...	...
Influenza	50	24	26	1	1	5	31	7	3	2	...	9	25	12	4	...	...	...	...	...
Enteric fever	49	42	7	1	1	17	18	7	5	...	...	3	3	4	22	16	1	...	...	...
Diphtheria	98	45	53	63	20	4	9	2	...	...	...	16	6	34	30	11	1	...	...	...
Diphtheritic paralysis	8	7	1	3	4	...	...	1	...	...	...	1	1	3	3	...	...	...	...	...
Fever of doubtful nature	13	8	5	1	1	3	6	1	...	1	...	3	3	6	1	...	...	...	...	...
Whooping-cough	4	2	2	4	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...
Ague	9	9	...	...	...	...	7	2	...	...	...	2	3	3	1	...	...	...	...	...
Pyæmia	1	1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
Acute rheumatism	65	44	21	1	10	16	19	10	7	...	2	2	14	24	19	5	1	...	...	...
Chronic articular rheumatism	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Muscular rheumatism	2	2	...	...	...	...	1	...	...	1	...	...	2	...	...	...	...	...	...	...
Gout.	4	3	1	...	...	...	...	...	4	...	...	...	1	...	3	...	...	...	...	...
Rickets	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Diabetes mellitus	12	10	2	...	...	...	2	4	4	2	...	3	2	...	6	1	...	...	...	...
Purpura	7	5	2	1	2	3	...	1	...	...	...	1	3	...	2	1	...	...	...	...

Table of Diseases.

Died.	Re- lieved.		Unre- lieved.		Died.		REMARKS.
	F.	M.	F.	M.	F.	M.	
0	...	...	...	...	2	...	14 cases, including 1 house physician, 1 assistant house surgeon, 1 student, and 4 nurses, originated in hospital. For these and other cases originating in hospital see Table V, and also "Diphtheria," "Broncho-pneumonia," "Empyema," and "Hydrocephalus." Of cases cured: laryngeal onset in 2. Of fatal cases: laryngeal onset and tracheotomy in both. Broncho-pneumonia in 1, bronchitis and pulmonary collapse in 1.
2	...	...	...	1	...	...	3 cases, including 2 nurses, originated in hospital (see Table V). For another case see "Diphtheria."
5	1	...	1	...	...	1	Pleurisy in 1, thrombosis of central arteries of retina in 1, aortic incompetence in 1. Broncho-pneumonia in fatal case.
5	...	...	...	...	8	2	See Special Abstract.
9	...	...	...	...	9	14	See Special Abstract. For another case see "Enteric fever" abstract. For cases originating in hospital see Table V, and also "Pneumonia," "Phthisis," "Obscure lung disease," and "Myelitis."
1	1	...	...	...	2	...	
5	1	...	...	...	...	...	Hæmorrhage from bowel in 1. Insanity in 1.
1	...	...	1	1	1	...	Cases unrelieved discharged to prevent spread of infection. Pneumonia in 1. No P.M. on fatal case.
...	8	...	1	...	...	...	All contracted the disease abroad. The case unrelieved transferred to Surgical side with erysipelas.
...	...	...	...	...	1	...	P.M.—Pus in left ankle; left empyema and pulmonary infarctions; suppurative pericarditis; fatty liver; chronic tubal nephritis.
21	1	...	...	...	...	...	32 were cases of first attack, and in 17 of these there was evidence of mitral disease; pericarditis occurred in 1, congenital cardiac disease in 1, bronchitis and delirium in 1, transient albuminuria in 1, peliosis rheumatica in 1. 21 were cases of second attack, and in 10 of these there was evidence of mitral disease, and in 1 of mitral and aortic disease. Of the cases with mitral disease: pericarditis occurred in 1, pericarditis and pneumonia in 1, acute nephritis in 1, migraine in 1, pleurisy with effusion in 1, extensive salicylate rash in 1, erythema in 1. Of the 12 cases of third or later attack: mitral disease was present in 7, aortic disease and chorea in 1.
...	1	...	...	...	...	...	In-patient also in 1896.
...	...	...	...	...	...	...	Pleurodynia in both.
1	...	...	...	...	...	...	Attack of acute mania in 1.
...	1	...	...	...	...	...
...	6	2	2	...	2	...	Of cases discharged: eczema in 1, peripheral neuritis in 1, cataract and detachment of retina in 1. Of fatal cases: coma in both.
1	...	...	...	...	2	1	Of cases cured: effusion into joints in 2 males; in the female there were attacks of abdominal pain with albuminuria and hæmaturia. Of fatal cases: subserous hæmorrhages in all; submucous hæmorrhages in 1, pulmonary hæmorrhages in 1, blood in intestines in 2, ulcers of mucous membrane of cheek in 1.

TABLE III—

DISEASE.	Number of cases.			Age.							Duration of residence.									
	Total.	M.	F.	Under 5	5-10	20	30	40	50	60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mths. 1-2	Mths. 2-4	Mths. 4-6	Mths. 6-9	Mths. 9-12	Above 1 year.
I. GENERAL DISEASES—<i>continued.</i>																				
Anæmia	15	2	13	...	...	7	4	3	...	...	1	...	3	6	6	...	...	...	...	...
Pernicious anæmia	1	1	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...
Lymphadenoma	3	2	1	...	...	1	1	...	...	1	...	...	...	...	2	1	...	...	...	...
Leucocythæmia	4	3	1	...	...	...	...	2	1	1	...	...	1	...	...	3	...	...	...	...
General tuberculosis	6	3	3	2	1	2	1	...	...	...	...	2	3	...	2	...	...	...	...	...
Malta fever	2	2	...	...	...	...	1	1	...	...	...	...	...	...	2	...	...	...	...	...
Glanders	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Leprosy	1	...	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...
Disseminated sarcoma	2	2	...	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...
Disseminated carcinoma	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...
II. DISEASES OF THE SKIN.																				
Molluscum contagiosum	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Herpes zoster	2	2	...	...	...	...	1	1	...	...	...	...	1	1	...	...	...	...	...	...
Pityriasis rosea	1	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...
Pemphigus	2	1	1	...	...	...	1	...	...	...	1	...	1	1	...	...	...	...	...	...
Favus	1	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Erythema nodosum	4	2	2	...	1	2	1	...	...	...	...	...	2	1	1	...	...	...	...	...
Morphœa	2	...	2	...	...	2	...	...	...	...	...	...	...	...	1	1	...	...	...	...
Eczema	1	...	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Fibromata	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
III. DISEASES OF THE RESPIRATORY SYSTEM.																				
Simple laryngitis	4	2	2	3	...	...	...	1	...	...	...	1	2	...	1	...	...	...	...	...
Syphilitic laryngitis	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Papillomata of larynx	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Acute bronchitis	20	9	11	6	...	2	6	2	2	...	2	4	5	7	3	1	...	...	...	...

continued.

Cured.		Re-lieved.		Unre-lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
...	4	2	9	...	...	...	...	Of cases discharged: phthisis and delirium in 1 male. Of the females: femoral thrombosis in 1, enlarged spleen in 1. Two had been in-patients in previous years for gastric ulcer.
...	...	...	...	...	...	1	...	
...	...	2	...	...	1	...	...	Of the males: pleural effusion and ascites in 1, pressure on trachea in 1.
...	...	1	...	1	...	1	1	Of cases discharged: splenic leucocythæmia in 1, "mixed" type. Of fatal cases: enlarged spleen and liver, thrombosis of inferior vena cava in 1; for the other, a case of lymphatic leucocythæmia, see Special Abstracts.
...	...	...	...	...	...	3	3	Tubercles widely distributed in all; intestinal ulceration in 4; tubercular meningitis in 4, with caseous mass in cerebellum in 1. Evidence of old tuberculosis in 5. For other cases see "Tubercular Meningitis."
1	...	1	...	...	...	...	...
...	...	...	...	...	1	...	...	See Special Abstracts.
...	...	...	...	1	...	...	...	Nodular and macular type. A native of Mitau in Russia.
...	...	...	...	1	...	1	...	The same case, twice admitted. Death on readmission. Excision of sarcomatous testicle in February, 1897.
...	...	...	...	...	...	1	...	Primary carcinoma of rectum; secondary deposits in liver and lungs.
1	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	Excision.
1	...	...	...	...	...	...	...
1	1	...	...	...	...	...	...
...	...	1	...	...	...	...	...
2	2	...	...	...	...	...	...	Of the males: acute rheumatism in 1, mitral incompetence in 1.
...	...	...	...	2	...	...	...	A readmission. Left side of neck, left shoulder, arm, and hand involved. Movement at joints very limited.
...	
...	...	1	...	...	...	...	...
...	...	...	...	1	...	...	...
2	2	...	...	...	...	...	...
...	...	1	...	...	...	...	...
1	...	...	...	...	...	...	...	Operation.
7	10	...	1	1	...	1	...	Acute rheumatism in 1, pleurisy in 1, enlarged liver in 1. No P.M. on fatal case.

continued.

Cured.	Re- lieved.			Unre- lieved.			Died.		REMARKS.
	F.	M.	F.	M.	F.	M.	F.		
...	17	5	...	...	...	...	...	Albuminuria in 5.
...	3	3	1	...	...	1	2	Of cases discharged: 1 male admitted twice. Of fatal cases: in the male, right lung solid and airless, with excess of fibrous tissue; moderate dilation of all the bronchi; adherent pericardium. In 1 female, cavities and cirrhosis in both lungs, with dilatation of bronchi, no evidence of tubercle.
6	11	1	...	...	...	7	4	Of cases discharged: pleural effusion in 1, persistent signs at right apex in 1; measles, contracted in hospital, in 1 (see Table V); high and prolonged fever with diarrhœa in 1. Of fatal cases: 2 contracted measles in hospital (see Table V), pleural effusion in 1. No P.M. in 1.
14	1	...	...	...	...	13	2	Situation: right lung 37, left 18, both 20. Of cases on right: in 12 upper, in 16 lower, in 3 middle and lower, in 1 upper and middle, in 1 upper and lower, and in 4 all three lobes were involved. Of cases on left: in 2 upper, in 12 lower, and in 4 both lobes involved. Of cases on both sides: in 3 both upper, in 11 both lower lobes, in 1 left upper and right lower, in 1 left lower and right upper, in 2 one left lobe and entire right lung, in 1 left lower and right middle and lower lobes were involved. Crisis on 4th day in 4, on 5th in 3, on 6th in 7, on 7th in 11, on 8th in 4, on 9th in 3, on 10th in 6, on 11th in 1. In remaining cases, either lysis occurred, or resolution was delayed, or there was a fatal termination, or patient was admitted at end of attack. Of cases cured: 2 apparently due to trauma, pleural effusion in 5, empyema in 3, residual signs in 3, transient albuminuria in 11, thrombosis of veins of leg in 1, left hemianæsthesia and weakness in 1, marked delirium in 1, mania in 1, delirium tremens in 1, diarrhœa in 1. The case relieved, a child of two years, contracted diphtheria in the hospital (see Table V); residual signs at right apex on discharge. Of fatal cases: pleural effusion of opposite side in 2; purulent pericarditis in 2, associated in 1 with abscess in lung and purulent meningitis; myocarditis in 2, cardiac hypertrophy in 1, old pulmonary tuberculosis in 2, adherent pericardium and pleuræ in 1, chronic nephritis in 1. No P.M. in 1.
...	15	9	8	1	15	5	5	Of cases discharged: hæmoptysis in 6, pleurisy in 1, diarrhœa in 1, spinal curvature in 1, tubercular arthritis in 1, epilepsy in 1, peripheral neuritis in 1, albuminuria in 4, diphtheria, contracted in hospital, in 1 (see Table V). Of fatal cases: in 17 both lungs were involved, cavities at both apices in 6, at one apex in 8, ruptured aneurysm of branch of pulmonary artery in 1, laryngeal ulceration in 3, pneumothorax with pleural effusion in 1, hæmoptysis in 2; tubercular peritonitis in 2, associated in 1 with recent peritonitis; tubercular enteritis in 6, with hæmorrhage from bowel in 1; ascites in 1, tuberculosis of vermiform appendix in 2, renal tuberculosis in 2, renal calculus in 1, acute nephritis in 1, cirrhosis of liver in 2. No P.M. in 3.	

TABLE III—

DISEASE.	Number of cases.			Age.							Duration of residence.									
	Total.	M.	F.	Under 5	5-10	20	30	40	50	60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mths. 1-2	Mths. 2-4	Mths. 4-6	Mths. 6-9	Mths. 9-12	Above 1 year.
III. DISEASES OF RESPIRATORY SYSTEM— <i>continued.</i>																				
Hæmoptysis	15	14	1	...	...	2	6	2	4	1	...	3	3	4	4	...	1	...	...	...
Malignant disease of lung	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Collapse of lung	1	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Obscure lung disease	1	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Asthma	2	2	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...
Emphysema	1	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
Pleurisy	42	32	10	1	5	12	7	4	7	4	2	3	6	18	14	1	...	...	...	...
Empyema	18	14	4	9	2	2	...	1	3	1	...	3	1	4	8	2	...	...	...	...
Intra-thoracic growth	5	3	2	1	...	...	...	1	1	1	1	...	1	...	2	2	...	...	...	...
IV. DISEASES OF THE CIRCULATORY SYSTEM.																				
Pericarditis	7	3	4	...	2	3	...	1	...	1	...	...	...	1	5	1	...	...	...	...
Adherent pericardium	2	2	...	...	...	...	2	...	...	...	...	...	...	1	...	1	...	...	...	...
Valvular disease of heart— (a) Mitral stenosis	2	...	2	...	...	...	1	...	1	...	...	...	...	1	...	1	...	...	...	...

continued.

Cured.		Re- lieved.		Unre- lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
11	1	...	...	2	...	1	...	Phthisis in all. Cases unrelieved: both discharged at own request. In fatal case, cavity at one apex. For other cases see "Phthisis." Previously in-patient on Surgical side for sarcoma of shoulder. P.M.—Extensive sarcomatous deposits in both lobes of left lung.
...	...	...	...	...	...	1	...	
...	...	1	...	...	...	...	...
...	...	...	...	1	...	...	...	In-patient on two previous occasions; diagnosed as pulmonary tuberculosis in 1892; as broncho-pneumonia in 1896; diphtheria contracted in hospital (see Table V).
...	...	2	...	...	...	...	...	A readmission.
...	...	1	...	...	...	...	...
21	8	9	1	2	1	...	...	Right-sided 15, left-sided 25, bilateral 2. Aspiration: once 14 times, twice 5 times; dry tapping 3 times. One case had previously been admitted for phthisis and pleurisy. Phthisis in 2, tubercular peritonitis in 1, pericarditis in 1, albuminuria in 1, adenoids in 1. Of the cases unrelieved: one contracted erysipelas in the hospital, and was transferred to Surgical side (see Table V).
9	1	...	...	1	...	4	3	Right-sided 9, left-sided 8, bilateral 1. Resection of rib in 15, preceded in 2 cases by aspiration. Of cases discharged: measles in 1, contracted in hospital (see Table V). Case unrelieved discharged at mother's request. Of fatal cases: operation in 4; phthisis in 4; cirrhosis of lung in 1; broncho-pneumonia in 3, associated with bronchiectasis in 1; pleura enormously thickened in 1, calcified in 1; pericarditis in 1. No P.M. in 1.
...	...	2	...	1	1	...	1	In fatal case: large mass of new growth in anterior mediastinum, invading right bronchus; right lung collapsed; pleural effusion.
2	3	...	1	...	...	1	...	History of rheumatism in 4, of chorea in 1. Of cases discharged: mitral disease in 3, mitral and aortic disease in 1, ascites and œdema in 1. In fatal case: acute pericarditis, recent mitral endocarditis, and pneumonia of right upper lobe. For other cases see "Mitral incompetence" and "Mitral stenosis and incompetence."
...	...	1	...	...	...	1	...	A readmission, see Special Abstracts. For other cases see "Bronchiectasis," "Mitral stenosis and incompetence," "Ulcerative endocarditis," "Cirrhosis of liver," "Chronic nephritis," and "Cerebral hæmorrhage."
...	...	1	...	...	...	1	...	In the fatal case: extreme stenosis of mitral valve, adherent pleuræ, pulmonary infarctions, dilated stomach.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.									
	Total.	M.	F.	Under 5	5-10	-20	30	40	50	60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Above 1 year.	
IV. DISEASES OF THE CIRCULATORY SYSTEM — <i>continued.</i>																					
Valvular disease of heart — <i>continued.</i>																					
(b) Mitral incompetence .	26	16	10	...	2	2	4	5	5	7	1	5	1	11	8	1	...	...	...	...
(c) Mitral stenosis and incompetence	34	13	21	...	...	9	4	12	9	...	...	...	1	13	13	7	...	...	...	...
(d) Aortic disease .	6	5	1	...	...	1	1	3	1	...	...	2	...	1	1	2	...	...	...	...
(e) Aortic and mitral disease	35	22	13	...	...	7	5	5	12	4	2	2	7	12	10	4	...	...	...	...

continued.

Cured.	Re-lieved.			Unre-lieved.			Died.	REMARKS.
	F.	M.	F.	M.	F.	M.	F.	
...	15	10	...	...	...	1	...	History of rheumatism in 18. Of cases discharged: 1 had been an in-patient in previous years. During the year 1 patient was admitted three times and 1 twice. Hydrothorax in 1, albuminuria in 13, œdema in 10, ascites in 3, bronchitis in 3, pericarditis in 1, optic neuritis in 1, epistaxis in 1, cirrhosis of liver in 1, neurosis in 1, tonsillitis in 1, pregnancy in 1. In fatal case: bronchitis and broncho-pneumonia, with old phthisis; passive congestion of viscera.
...	13	17	...	...	1	...	3	History of rheumatism in 24, of chorea in 3, of rheumatism and chorea in 5. Ten had been in-patients in previous years. During the year 1 patient was admitted four times; 3 three times, with one death; 4 twice, with two deaths. Of cases discharged: œdema in 6, albuminuria in 13, ascites in 4, pericarditis in 4, bronchitis in 9, hydrothorax in 9, empyema in 1, thrombosis of veins of arm in 1. Of fatal cases: extreme stenosis in 1, the valve calcified in 2, complete adhesion of pericardium in 1, partial in 1. Recent mitral endocarditis in 1, old tricuspid endocarditis in 1, pulmonary infarctions in 2, hydrothorax in 1, passive congestion of viscera in all.
...	2	1	...	...	...	3	...	History of rheumatism in 3, of rheumatism and chorea in 1. Of cases discharged: 1 had been an in-patient in previous years. Bronchiectasis and pyo-pneumothorax in 1, hydrothorax in 1, albuminuria in 1. Of fatal cases: aortic incompetence in 2, incompetence and stenosis in 1, acute pericarditis in 1, aortic atheroma in 2, pulmonary infarction in 2, splenic infarction in 1, hydrothorax in 2, chronic nephritis in 1, anginal attacks in 1.
...	17	12	...	...	...	5	1	History of rheumatism in 19, of chorea in 1, of rheumatism and chorea in 1. Five had been in-patients in previous years. During the year 6 patients were admitted twice, with two deaths. Of cases discharged one female died on readmission from ulcerative endocarditis, <i>q. v.</i> Albuminuria in 11, œdema in 9, ascites in 1, epistaxis in 2, syphilis in 2, bronchitis in 2, vomiting in 2, enlarged liver in 3, enlarged superficial veins in 1 (admitted twice). Of fatal cases: aortic incompetence in all, with mitral incompetence in 3, mitral stenosis in 1, mitral stenosis and incompetence in 1, mitral and tricuspid incompetence in 1. Recent vegetations on aortic valve in 1, on aortic and mitral valves in 1, on aortic, mitral, and tricuspid valves in 1. Aortic valves calcareous in 1, fibroid myocarditis in 1, fatty myocarditis in 1, marked aortic atheroma in 2, pulmonary infarctions in 4, hydrothorax in 3, ascites in 1, chronic nephritis in 1, passive congestion of viscera in all.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.								
	Total.	M.	F.	Under 5	5-10	20	30	40	50	60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mths. 1-2	Mths. 2-4	Mths. 4-6	Mths. 6-9	Mths. 9-12	Above
IV. DISEASES OF THE CIRCULATORY SYSTEM— <i>continued.</i>																				
Ulcerative endocarditis .	16	9	7	.	1	8	2	4	1	...	...	1	3	3	5	1	3	...	...	...
Congenital heart disease .	3	3	...	...	1	...	2	...	...	...	...	...	1	2	...	...	...	...	...	...
Dilated heart	2	...	2	...	...	...	2	...	2	...	...	...	...	2	...	...	...	...	...	...
Tachycardia	4	3	1	...	...	2	...	2	...	...	...	...	2	2	...	...	...	...	...	...
Thoracic aneurysm	27	23	4	...	...	...	8	6	5	8	3	3	10	5	3	2	...	1	...	...
Abdominal aneurysm . . .	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
General arterial disease .	5	5	...	...	...	...	...	...	4	1	...	1	3	...	1	...	...	...	...	...
Pulmonary arteritis . . .	1	...	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Raynaud's disease	1	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Venous thrombosis	2	1	1	...	...	2	...	...	...	...	...	1	1	...	...	...	...	...	...	...
V. DISEASES OF THE DUCTLESS GLANDS.																				
Simple goitre	1	1	.	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...

continued.

Died.	Unre- lieved.		Re- lieved.		F.	M.	F.	M.	F.	M.	F.	Died.	REMARKS.
1	...	1	1	1	8	4							History of rheumatism in 5, of chorea in 1. For case cured see Special Abstracts. The female relieved died on readmission. Both cases unrelieved died shortly after leaving the hospital. Of fatal cases: 1 had been discharged from the hospital ten weeks with chronic aortic and mitral disease, and there was at that time no evidence of ulcerative endocarditis. Evidence of old-standing valvular disease in 8. The main site of the lesion was the mitral valve in 1, the mitral valve and auricular wall in 4, the mitral and aortic valves in 2, the mitral and tricuspid in 2, the aortic valve, mitral valve, and ventricular wall in 1, the aortic, mitral, and tricuspid valves in 1, the aortic valve and auricular wall in 1. Adherent pericardium in 2, cerebral embolism in 3; infarcts of spleen in 6, of kidney in 6, of brachial artery in 1, of pulmonary artery in 2; portion of sloughing placenta in uterus in 1, hydrothorax in 3, cutaneous and serous hæmorrhages in 1, ascites in 1, great enlargement of spleen in 1, passive congestion of viscera in 6. For other cases see "Hemiplegia" and "Cerebral hæmorrhage."
...	...	3	...	...	...	...	...	...	...	...	...	...	One case admitted twice; phthisis in 1.
...	...	2	...	...	...	...	...	...	...	...	...	...	Phthisis in 1 case relieved.
...	2	1	...	...	1	...	...	...	...	...	...	...	History of syphilis in 9. Four had been in-patients in previous years; during the year one case was admitted three times, two twice. Situation: ascending arch 7, transverse arch 16, ascending and transverse arch 1, descending arch 3, associated in one with a small cured aneurysm of ascending arch. Of cases discharged: paralysis of left vocal cord in 2; enlarged superficial veins in 3, in one case pulsating (admitted twice); albuminuria in 4, enlarged liver in 1, pleural effusion in 1, bronchitis in 1. Of fatal cases: pneumothorax in 1, pleural effusion in 1, gangrene of lower lobe of left lung in 1, renal infarction in 1, communication with œsophagus in 1, chronic nephritis in 1, gout in 1.
...	12	1	6	3	5	...	...	...	...	...	...	...
...	...	1	...	...	...	...	...	...	...	...	...	...	One case died on fourth admission. P.M.—Heart enormously hypertrophied, valves slightly sclerosed, tricuspid valve incompetent, extreme atheroma, kidneys arterio-sclerotic.
...	4	...	...	...	1	...	...	...	...	...	...	...	See Special Abstracts.
...	...	1	...	...	...	...	...	...	...	...	...	...
1	...	...	1	...	...	...	...	...	...	...	...	...	In 1 case following childbirth; in the other following enteric fever.
...	1	...	...	...	...	...	...	...	...	...	...	...	A boy from King Edward's School at Witley, Surrey, where several similar cases occurred at the same time.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.									
	Total.	M.	F.	Under 5	5-10	10-20	20-30	30-40	40-50	50-60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mths. 1-2	Mths. 2-4	Mths. 4-6	Mths. 6-9	Mths. 9-12	Above 1 year.	
V. DISEASES OF THE DUCT-LESS GLANDS— <i>continued.</i>																					
Exophthalmic goitre	9	1	8	...	...	1	3	3	2	...	...	2	3	...	3	...	1	...	...	...
Myxædema	3	...	3	...	...	...	...	...	2	1	...	...	2	1	...	...	...	...	...	...
Addison's disease	5	3	2	...	...	...	...	2	3	1	...	1	...	...	1	2	1	...	...	...
VI. DISEASES OF THE DIGESTIVE ORGANS.																					
1. <i>Alimentary canal.</i>																					
Stomatitis	2	2	...	...	...	2	...	...	...	...	...	...	1	1	...	...	...	...	...	...
Tonsillitis	16	4	12	1	...	2	11	2	...	...	...	7	6	2	1	...	...	...	...	...
Stricture of œsophagus	10	8	2	...	...	...	...	2	4	4	...	1	6	2	1	...	...	...	...	...
Dyspepsia	7	2	5	...	...	1	1	1	4	...	...	2	...	5	...	...	...	...	...	...
Gastric ulcer	50	12	38	...	...	5	19	15	9	2	...	9	5	13	17	5	1	...	...	...
Duodenal ulcer	4	4	...	...	...	1	1	1	1	...	...	1	...	1	1	1	...	...	...	...
Hæmatemesis	3	3	...	...	...	2	...	...	1	...	...	...	1	1	1	...	...	...	...	...
Vomiting	12	3	9	2	1	3	...	4	...	1	1	2	3	3	2	2	...	...	...	...

continued.

red.	Re-lieved.		Unre-lieved.		Died.		REMARKS.
	F.	M.	F.	M.	F.	M.	
...	...	2	1	3	...	3	Of cases discharged: corneal ulceration in 1, mitral incompetence in 2, vomiting in 1, mania in 1. Of fatal cases: thymus enlarged in 2. In 1 no P.M.
1	...	2	...	...	...	...	Bronchitis in 1, transient albuminuria in 1.
...	2	...	...	...	1	2	Case relieved: a readmission. Of fatal cases: caseous suprarenal glands in 2, tuberculosis of lungs and peritoneum in 1, obliteration of one pleura and psoas abscess in 1, mitral disease in 2, old abdominal adhesions in 1. In 1 no P.M.
...	1	...	...	...	...	...
12	...	...	...	...	...	...	Includes 1 house physician, 4 nurses, 4 wardmaids. Acute nephritis in one—a case of septic tonsillitis and pharyngitis.
...	...	...	7	1	1	1	Of cases discharged: probable malignant disease in all; 4 transferred to Surgical side, in 2 of whom gastrostomy was performed. Of fatal cases: carcinoma in both; in 1 opposite to bifurcation of trachea, in the other at commencement of œsophagus. Broncho-pneumonia in 1.
2	1	3	...	...	...	...	Dilatation of stomach and mitral incompetence in 1.
29	3	2	...	1	3	6	3 had been in-patients in previous years, and of these one died on second admission during the year. One other case died on readmission. Of cases discharged: hæmatemesis or history of it in 27, associated with melæna in 2; perforation, operation and cure in 1; localised perforation in 1, thrombosis of veins of leg in 1. Of fatal cases: perforation in all, operation in 8, general peritonitis in 7, local peritonitis in 2; subdiaphragmatic and pelvic abscesses in 2, associated in 1 with a collection of pus above the diaphragm. Situation of ulcer: on lesser curvature 2, anterior surface near pylorus 2, anterior aspect of pylorus 1, greater curvature near cardiac end 1; in 2 cases there were two ulcers. In 1 no P.M. Impacted ureteral calculus and hydronephrosis in 1, cirrhosis of liver in 1, chronic nephritis in 1, gall-stones in 1.
...	...	...	1	...	...	...	Of cases cured: melæna in 3, with hæmatemesis also in 1; parotitis in 1. Case unrelieved transferred to Surgical side with perforation for laparotomy; death 8 days later.
...	...	...	...	...	...	...	Probable gastric ulcer in 1, epistaxis also in 1, mitral disease in 1.
5	...	4	...	...	...	...	In case relieved (admitted four times), occasional trace of albumen; also gastralgic attacks, in one of which laparotomy was performed whilst at convalescent home.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.								
	Total.	M.	F.	Under 5	5-10	-20	-30	-40	-50	-60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Above 1 year.
VI. DISEASES OF THE DIGESTIVE ORGANS— <i>continued.</i>																				
1. <i>Alimentary canal</i> —cont.																				
Malignant disease of stomach	16	9	7	...	...	...	...	2	4	5	5	...	3	4	7	1	1	...	...	...
Dilated stomach . . .	4	3	1	...	...	...	...	1	1	1	1	...	1	1	2	...	...	...	...	...
Gastric pain . . .	3	1	2	...	...	...	...	3	...	...	...	...	3	...	...	...	...	...	...	...
Diarrhœa and vomiting	28	16	12	16	1	5	3	3	...	...	...	17	7	3	...	1	...	...	...	...
Diarrhœa . . .	18	13	5	5	1	3	5	2	1	1	...	8	8	1	...	1	...	...	...	...
Dysentery . . .	3	3	...	...	...	...	1	1	1	...	...	1	...	1	1	...	...	...	...	...
Ulcerative colitis . . .	3	2	1	...	...	...	...	3	...	...	...	1	...	...	1	...	...	...	1	...
Colic . . .	5	5	...	...	...	...	2	2	...	1	...	2	3	...	...	...	...	...	...	...
Constipation . . .	19	8	11	1	...	7	2	3	3	1	2	5	6	5	3	...	...	...	...	...
Intussusception . . .	8	7	1	7	...	...	1	...	...	...	...	6	1	1	...	...	...	...	...	...
Volvulus . . .	1	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...
Obstruction, other forms .	5	2	3	1	1	...	...	1	1	...	1	3	...	...	1	1	...	...	...	...

continued.

Cured.		Re- lieved.		Unre- lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
...	...	...	...	5	7	4	...	Of cases unrelieved: 3 were transferred to Surgical side for exploration, but in all the growth was too extensive for removal; in one of these no tumour could be felt 5 months afterwards, but death occurred twelve months after the operation. Of fatal cases: exploration in 1, pyloric growth extending on to stomach in all, pylorus constricted in 2, head of pancreas involved in 1, numerous small cysts in liver containing living paramœcia in 1 (<i>vide</i> 'Pathological Society's Transactions,' 1899), secondary deposits in liver in 2, partially adherent pericardium in 1. Probable pyloric obstruction in 1, cause undetermined in others.
...	1	...	2	1	...	...	...
1	...	2	...	...	...	...	...
4	9	...	...	...	...	2	3	Of fatal cases: all in infants; broncho-pneumonia in 1, recent blood in small intestine in 1. In 2 no P.M.
1	5	1	...	...	...	1	...	Includes 1 nurse and 2 yardmaids. In the fatal case, an infant, general œdema (no albuminuria), fatty degeneration of liver.
2	...	...	1	...	...	...	...	All contracted abroad.
...	...	...	...	...	...	2	1	Extensive ulceration of large bowel in 2; two cicatrised ulcers in splenic flexure and sigmoid flexure in 1 case, in which colotomy had been performed. Acute peritonitis in 2.
5	...	...	...	...	...	...	...
6	8	2	3	...	...	...	...	Chicken-pox in 1, albuminuria in 1.
2	...	...	1	...	...	4	1	Of cases cured: exploration and reduction of ileo-cæcal intussusception in 1, reduction occurred during manipulation under anæsthetic in 1. The case unrelieved was transferred to Surgical side for exploration; multiple intussusceptions of small intestine were reduced; death. Of fatal cases: operation in all, ileo-cæcal in 4, of small intestine in 1, reduction in 4, resection of cæcum in 1.
...	...	...	...	...	...	...	1	Ascending colon involved. For a case of volvulus of small intestine see "Inflammation of Vermiform Appendix."
1	...	...	...	...	...	1	2	Of cases cured: exploration in both; obstruction incomplete in 1, and due to adhesions between intestinal coils in sac of inguinal hernia; in the other also due to intestinal adhesions. Of fatal cases: in 1 (explored) obstruction due to strangulation of end of ileum by adhesion of appendix to a caseous mesenteric gland, with acute peritonitis; in 1 (not explored) two loops of jejunum had been strangulated through a hole in the mesentery; in 1 (explored) due to tubercular peritonitis, no P.M.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.									
	Total.	M.	F.	Under 5	5-10	-20	-30	-40	-50	-60	Above 60	Under 1 week	Wks. 1-2	Wks. 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Above 1 year	
VI. DISEASES OF THE DIGESTIVE ORGANS— <i>continued.</i>																					
1. <i>Alimentary canal</i> —cont.																					
Malignant disease of intestine	24	17	7	...	...	...	3	4	3	7	7	10	5	4	2	3	...	...	...	..
Inflammation of vermiform appendix	72	59	13	...	...	28	37	4	3	...	...	19	17	25	9	2	...	...	...	..
Membranous colitis . . .	3	1	2	...	...	...	2	1	...	...	...	1	1	...	...	...	1	...	...	..
Hæmorrhage from bowel . .	1	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	..
Enteroptosis . . .	3	...	3	...	...	...	1	1	1	...	...	...	1	2	...	...	...	...	...	..
2. <i>Peritoneum.</i>																					
Acute peritonitis . . .	2	1	1	...	...	1	1	...	...	...	...	2	...	...	...	...	...	...	...	..
Tuberculous peritonitis . .	9	2	7	3	1	2	1	1	1	...	...	...	1	2	4	2	...	...	...	..
3. <i>Liver.</i>																					
Cirrhosis . . .	32	20	12	...	...	1	1	4	9	11	6	4	9	14	4	1	...	...	...	..

continued.

F.	M.	F.	M.	F.	M.	F.	Died.	REMARKS
...	2	2	8	3	7	2		Situation: rectum 9, sigmoid flexure 6, splenic flexure 2, transverse colon 1, hepatic flexure 2, cæcum 2, small intestine 2—in one high up, in the other immediately above cæcum. Of cases discharged: 4 were explored, and 3 more after transfer to Surgical side; resection of hepatic flexure and lateral anastomosis in 1. Of fatal cases: exploration in 4, including 3 colotomies; acute peritonitis in 4, in only 2 of which could a perforation be discovered; secondary deposits in liver in 3, in mesentery and peritoneum 1, in stomach 1; suppurative nephritis in 1. In 2 no P.M.
5	1	...	22	5	12	3		First attack in 42, and of these 8 fatal, second attack in 10, and of these 1 fatal, recurrent attacks in 16, and of these 3 fatal. Of cases cured: exploration in 11; general peritonitis in 2, one a case of first attack, the other of second attack, both cured by operation (see <i>Medical Society's Transactions</i> , 1899); local abscess and also subphrenic abscess in 2 cases (see <i>Hospital Reports</i> , 1897, "Intra-peritoneal suppuration in the upper half of the abdomen"); simple local abscess in 7. The case relieved was transferred to Surgical side for fæcal fistula following evacuation of local abscess. The cases unrelieved were all transferred to Surgical side; 22 after subsidence of the acute attack for removal of the appendix, 2 with local abscess, 1 with local abscess and general peritonitis (fatal case), 1 with local abscess and subdiaphragmatic infection (see <i>Hospital Reports</i> as above), 1 with general peritonitis. Of fatal cases: exploration in 4, general peritonitis in 14, subphrenic abscess in 1, sub-hepatic and hepatic abscess in 1 (see <i>Special Abstracts</i>), empyema in 1, volvulus of small intestine in 1, recent mitral endocarditis in 1, broncho-pneumonia in 1. No P.M. in 1.
...	1	2	...	...	...	...
...	...	...	1	...	...	...
...	...	3	...	...	...	...		Albuminuria in 1.
...	...	...	...	...	1	1		Exploration in both. In the male: chronic nephritis; in the female: remains of placenta in the uterus.
1	2	6	...	...	...	...		Ascites in 2 (abdominal incision in 1), definite mass to be felt in 5, pus discharged at umbilicus in 1.
...	15	9	2	...	3	3		Four had been in-patients in previous years, and of these 3 died, 2 of them on third admission in 1898. One case admitted six times, 2 twice during the year. Of cases discharged: ascites in 19, of whom 12 were tapped, one case for the 15th time. Albuminuria in 7, œdema in 6, hæmatemesis in 3, mitral incompetence in 3, mitral and aortic disease in 1, delirium tremens in 1, delusions in 1, diarrhœa in 1, jaundice in 1, enlarged spleen in 1. Of fatal cases: ascites in 4, simple cirrhosis in 3, cirrhosis and perihepatitis in 2 (associated with adherent pericardium in 1, and in both repeated tapplings during life), cirrhosis and enlarged spleen in 1 (see <i>Special Abstracts</i>), chronic nephritis in 3.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.									
	Total.	M.	F.	Under 5	5-10	-20	-30	-40	-50	-60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Above 1 year.	
VI. DISEASES OF THE DIGESTIVE ORGANS— <i>continued.</i>																					
3. <i>Liver</i> — <i>continued.</i>																					
Perihepatitis	2	2	...	...	...	...	...	...	1	1	...	...	...	...	...	1	1	...	...	...
Cholelithiasis	19	6	13	...	...	1	3	3	3	6	3	2	2	7	5	3	...	...	...	...
Acute yellow atrophy	2	1	1	...	...	1	1	...	...	...	...	1	...	1	...	...	...	...	...	...
Catarrhal jaundice	4	2	2	...	...	1	1	1	1	...	...	...	3	1	...	...	...	...	...	...
Obstructive jaundice	1	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
Abscess of liver	3	2	1	...	...	1	1	...	...	1	...	2	...	1	...	...	...	...	...	...
Syphilis of liver	1	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Malignant disease of liver	9	4	5	...	...	3	...	1	2	3	...	1	2	3	2	1	...	...	...	...
Tumour of gall-bladder	2	...	2	...	...	...	...	...	1	1	...	...	1	...	1	...	...	...	...	...
4. <i>Various.</i>																					
Abdominal tumour	11	9	2	...	1	2	1	2	1	4	...	1	...	6	3	1	...	...	...	...
Ascites	1	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
VII. DISEASES OF THE GENITO-URINARY SYSTEM.																					
Acute nephritis.	6	4	2	1	1	...	4	...	...	...	...	1	...	1	3	1	...	...	...	...

continued.

Cured.		Re- lieved.		Unre- lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
...	...	...	...	...	...	2	...	In both repeated tapplings during life; in both perihepatitis and chronic peritonitis, with acute peritonitis also in 1; no cirrhosis in either. Gummata of liver and lardaceous viscera in 1, hydrothorax in 1, terminal erysipelas in both. For other cases see "Cirrhosis of Liver."
4	6	...	3	1	3	1	1	Of cases discharged: colic in 14, jaundice in 7; exploration and removal of gall-stones in 1, and in 2 more after transfer to Surgical side. One of the latter had been an in-patient previously in 1898 for pain apparently originating in left kidney, for which left-sided nephrotomy was performed, no stone being found (see Nephralgia); in neither attack was there jaundice, and the second operation was performed also under the impression that it was a case of renal colic (left), the gall-stones being discovered after negative examination of kidney. Of fatal cases: in 1 two gall-stones impacted in common duct, cirrhosis of liver, chronic nephritis and gout; for the other see Special Abstracts.
...	...	...	...	...	...	1	1	See Special Abstracts.
2	2	...	...	...	...	...	...	Liver enlarged and nodular; spleen enlarged.
...	...	1	...	...	...	...	...	History of dysentery in 2; operation in case cured. Cases unre-
...	1	...	2	...	...	...	...	lieved transferred to Surgical side for operation.
1	...	...	...	...	...	...	...
...	...	...	1	2	3	3	...	Of cases discharged: the male patient died on readmission. Of fatal cases: carcinoma in all, secondary to carcinoma of breast in 1. The disease was apparently primary in the liver in 4; growth multiple and nodular in 3, arranged in bands penetrating the liver substance in 1; associated with gall-stones, carcinoma of gall-bladder, pancreas and peritoneum in 1; secondary deposits in lungs 1, in kidneys 1, in intestine 1; portal vein full of growth in 1.
...	...	...	2	...	...	...	...	Exploration in 1: carcinoma.
...	1	1	...	6	1	2	...	Of cases discharged: inflammatory mass in the case cured, probable tubercular glands in 2; exploration in 1 (malignant), in another after transfer to Surgical side (malignant); probable malignant disease in 2 others, in remainder nature doubtful.
...	...	...	1	...	...	...	...	Of fatal cases: sarcoma in both; exploration in 1.
...	...	...	...	...	...	...	...	Enlarged liver.
...	1	3	...	...	1	1	...	No history of scarlet fever in any; pregnancy in 1; in 2 merely a trace of albumen on discharge.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.									
	Total.	M.	F.	Under 5	5-10	-20	-30	-40	-50	-60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Above 1 year.	
VII. DISEASES OF THE GENITO-URINARY SYSTEM — <i>con- tinued.</i>																					
Chronic nephritis	58	44	14	...	1	6	10	15	10	10	6	2	9	16	20	9	2	...	...	...
 Tuberculous kidney	3	3	...	...	...	3	...	...	...	...	...	...	...	1	2	...	...	...	...	...
Hydronephrosis	1	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Pyonephrosis	3	1	2	...	...	...	...	...	2	...	1	...	...	3	...	...	...	...	...	...
 Moveable kidney	6	...	6	...	1	3	1	1	...	...	...	...	...	5	1	...	...	...	...	...
Hæmorrhagic kidney	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
 Renal colic	7	7	...	...	...	1	3	1	2	...	...	1	1	4	1	...	...	...	...	...
Nephralgia	1	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
 Hæmaturia	3	2	1	...	1	1	...	...	1	...	...	...	...	2	1	...	...	...	...	...
VIII. DISEASES OF THE NERVOUS SYSTEM.																					
Acute meningitis	2	1	1	...	2	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...
 Chronic meningitis	2	...	2	2	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...

continued.

Cured.		Re- lieved.		Unre- lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
...	...	33	10	1	...	10	4	Four had been in-patients in previous years. During the year 2 cases admitted three times, 3 twice. History of gout in 6, of alcohol in 4, of scarlet fever in boy, æt. 11 years, who died on third admission. Of cases discharged: enlarged heart in 17, œdema in 19, marked ascites in 9, renal retinitis in 5, uræmic convulsions in 1, uræmic vomiting in 2, hydrothorax in 6, empyema in 1, bronchitis in 4, œdema of lungs in 3, glycosuria in 1, cirrhosis of liver in 2. Of fatal cases: kidneys granular and of normal size or under in 3, granular and large in 2, smooth and large in 7, hydronephrotic in 1, mixed nephritis in 1. Cardiac hypertrophy in 10, adherent pericardium in 1, adherent pleuræ in 2, pulmonary infarction in 1, phthisis in 1, pneumonia in 1, hydrothorax in 3, acute peritonitis in 1.
...	...	2	...	1	...	...	...	Case relieved admitted twice, diagnosis probable. In case unrelieved: pyuria, enlarged right kidney, tubercle bacilli in urine; transferred to Surgical side.
...	1	...	...	...	Left-sided. Transferred to Surgical side for nephrectomy.
...	1	1	1	1	The case unrelieved was transferred to Surgical side with bilateral calculous pyonephrosis. Of fatal cases: in the male the condition was secondary to cystitis, enormous dilatation of both ureters; in the female bilateral pyonephrosis, branching calculus in left kidney, cystitis.
...	1	...	5	...	...	...	...	Nephropexy in case cured.
...	1	...	Child admitted after illness of one day with acute abdominal symptoms. A tumour was present in right loin, and was found on abdominal section to be an enormously swollen and hæmorrhagic kidney. P.M.—Nothing found to account for the condition, and the left kidney was normal.
3	...	2	...	2	...	...	...	Hæmaturia in 1, carcinoma of parotid in 1; one case transferred to Surgical side for nephro-lithotomy.
...	1	...	...	...	Transferred to Surgical side for left-sided nephrotomy, no stone found; subsequently admitted with similar symptoms, and gall-stones removed from gall-bladder. See "Cholelithiasis."
1	1	...	...	1	...	...	...	Cause undetermined in all.
...	1	1	In the male: cerebro-spinal, chronic otitis media; in the female: suppuration in right frontal sinus, with intense meningitis of vertex and base, early peritonitis.
...	2	Chronic basal meningitis, with excess of ventricular fluid, no evidence of tuberculosis, right otitis media, loculated left empyema in 1. No P.M. in 1.

TABLE III—

DISEASE.	Number of cases.			Age.								Duration of residence.								
	Total.	M.	F.	Under 5	5-10	20	30	40	50	60	Above 60	Under 1 week.	Wks. 1-2	Wks. 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Above 1 year.
VIII. DISEASES OF THE NERVOUS SYSTEM— <i>continued.</i>																				
Tubercular meningitis	6	5	1	4	...	1	1	...	...	...	...	5	1	...	...	...	...	...	...	...
Hemiplegia	28	18	10	...	1	2	3	7	5	7	3	...	8	5	9	6	...	...	...	...
Cerebral hæmorrhage	9	5	4	...	...	1	...	...	2	4	2	5	2	1	1	...	...	...	...	...
Intra-cranial (cerebral) tumour	11	5	6	...	1	4	2	2	2	...	...	...	1	2	3	...	4	1	...	...
Headache.	5	4	1	...	...	...	1	...	2	1	1	1	1	3	...	...	...	...	...	...
Hemianæsthesia	3	3	...	...	...	...	2	...	1	...	...	...	1	1	1	...	...	...	...	...
Cerebral abscess	3	2	1	...	...	...	1	2	...	...	...	1	...	...	1	1	...	...	...	...
Cerebral syphilis	3	1	2	...	...	...	1	2	...	...	...	...	...	2	...	1	...	...	...	...
Hydrocephalus	1	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...

continued.

Cured		Re- lieved.		Unre- lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
...	5	1	Cerebro-spinal distribution in 1, acute general tuberculosis in 2, chronic pulmonary tuberculosis in 3, caseous bronchial or mesenteric glands in 3 others; caseous masses in frontal, parietal, and cerebellar regions in 1 case trephined.
2	...	6	6	8	4	2	...	Right-sided in 10, with aphasia in 7; left-sided in 18, with partial aphasia in 1, a left-handed woman. Probably due to syphilis in 4; infantile hemiplegia in 1, with epilepsy and idiocy; of traumatic origin in 2—a football injury, with complete recovery, in 1, due to injury to vessels and suicidal “cut-throat” in the other; associated with cardiac disease, and probably embolic, in 6. Marked mental weakness in 2. Trephining in 1. Of fatal cases: ulcerative endocarditis and embolic softening of right basal ganglia and motor cortex in 1, right-sided pachymeningitis with extensive subdural hæmorrhage in 1. For another case see “Phthisis.”
...	...	1	...	...	1	4	3	Of fatal cases: in 4 it originated in the left side of the brain, in 1 of which the main hæmorrhage was situated near the posterior horn of lateral ventricle, with a separate small hæmorrhage into internal capsule; in 2 capsular hæmorrhage, overflowing into both lateral ventricles in 1; subdural hæmorrhage over entire left hemisphere in 1. Right-sided in 2: capsular and ventricular in 1, frontal in 1—a girl of 18 with ulcerative endocarditis and adherent pericardium. Bilateral in 1, into both optic thalami and all ventricles. Epilepsy in 1, hypertrophied left ventricle in 5, chronic interstitial nephritis in 2, pulmonary tuberculosis in 1.
...	...	1	3	2	2	3	...	Of cases discharged: 1 female had been an in-patient in 1895 and 1896, and had been trephined; in 1 the breast had been amputated for carcinoma in 1894. Of fatal cases: glioma of pons in 1, multiple gliomata in 1; glioma of corpus callosum in 1, of right frontal lobe in 1; round-celled sarcoma in inter-peduncular space in 1.
...	...	3	1	1	...	...	...	Dementia in 1, migraine in 1.
...	...	2	...	1	...	...	...	Syphilis in 1; one case admitted twice with fits, maniacal on second admission.
...	...	1	...	...	...	1	1	The female had been an in-patient 4 months previously and was operated on for otitis media; trephined on readmission, and pus evacuated from cerebellum; death 6 weeks after the operation. For the male (admitted twice) see Special Abstracts.
...	...	1	1	1	...	...	...	In the male hemianopia and epileptiform attacks. Of the females: paralysis of cranial nerves in 1 (in-patient also in 1897), ophthalmoplegia and ozæna in 1. See also “Hemiplegia” and “Hemianæsthesia.”
...	1	...	...	...	...	Contracted measles in hospital. See Table V.

TABLE III—

DISEASE.	Number of cases.			Age.							Duration of residence.									
	Total.	M.	F.	Under 5	5-10	-20	-30	-40	-50	-60	Above 60	Under 1 week	Wks. 1-2	Wks. 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Above 1 year.
VIII. DISEASES OF THE NERVOUS SYSTEM—continued.																				
Obscure cerebral disease	3	1	2	...	...	1	...	1	...	1	...	...	1	...	1	...	...	...	...	...
Bulbar paralysis	1	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
Diplopia	1	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...
General paralysis	7	7	...	...	...	...	3	3	1	...	...	3	1	3	...	...	...	...	...	...
Dementia	2	1	1	...	...	...	...	1	1	...	...	...	...	1	1	...	...	...	...	...
Chorea	18	4	14	1	5	12	...	...	...	...	...	...	2	4	6	5	...	...	1	...
 Hysteria	 43	 9	 34	 ...	 1	 4	 23	 10	 3	 ...	 2	 3	 4	 6	 14	 15	 1	...	...	...
 Epilepsy	 20	 13	 7	 1	 2	 2	 2	 8	 3	 1	 1	 7	 4	 3	 4	 1	 ...	 1	...	...
 Infantile convulsions	 2	 2	 ...	 2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...
Myelitis	8	8	...	...	...	1	3	...	3	1	...	...	1	1	1	4	1	...	...	...
 Paraplegia	 5	 1	 4	...	...	...	1	 2	 1	 1	...	...	...	2	 2	 1	...	...	...	...
Spinal caries	3	...	3	...	...	1	...	1	1	...	...	...	1	...	2	...	...	...	...	...
Anterior poliomyelitis	3	3	...	...	...	...	1	2	...	...	...	...	1	...	2	...	...	...	...	...
Locomotor ataxia	6	6	...	...	...	...	2	...	3	1	...	...	...	1	3	...	2	...	...	...
Disseminated sclerosis	6	3	3	...	...	...	4	2	...	...	...	...	...	...	4	1	...	...	...	...
Progressive muscular atrophy	2	1	1	...	...	1	...	...	1	...	...	...	...	1	...	1	...	...	...	...
Hereditary ataxy	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Syringomyelia	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Cervical pachymeningitis	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
Obscure disease of spinal cord	1	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
Landry's paralysis (?)	1	1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
Sciatica	7	6	1	...	...	1	2	1	1	1	1	...	...	3	4	...	...	...	...	...

continued.

Cured.		Re- lieved.		Unre- lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
				1	2			In the male idiocy with spastic condition of limbs. In both females probable cerebellar disease.
				1				
					1			Cause doubtful. In-patient also in 1886.
				7				Evidence of syphilis in 5.
				1	1			
4	13		1					First attack in 13, second in 4, third in 1. Rheumatism in 6, family history of it in 3 more, family history of chorea in 1 more. Chorea insaniens in 1, pericarditis in 2, mitral disease in 8, mitral and aortic disease in 2, herpes zoster in 1.
7	21	1	12	1	1			Three had been in-patients in previous years; two cases admitted twice during the year. Abasia in 1, neurasthenia in 15, vomiting in 6, various pains in 8, functional movements in 9, contracted hand in 1, œsophagismus in 1; paraplegia in 3, associated with weakness of right arm and aphonia in 1, weakness of right arm in 1; hemiplegia in 1. Enteric fever, contracted in hospital in 1 (see Table V).
		7	7	4		2		Of cases discharged: 1 had been previously trephined, 2 trephined while in hospital; obesity and delusions in 1, paraplegia and delusions in 1, mitral disease in 2, left-sided weakness in 1. Of fatal cases: status epilepticus in 1, with thickening of membranes at base of brain; small meningeal hæmorrhage in the other.
1						1		No gross lesion in fatal case.
		3		3		2		Of cases discharged: history of syphilis in 2; diphtheria, contracted in hospital, in 1 (see Table V). Of fatal cases: diffuse softening of cord, chronic nephritis, and recent aortic endocarditis in 1; mid-dorsal myelitis, suppurative nephritis, and cystitis in the other.
			2	1	2			Ataxic paraplegia in 1, spastic paraplegia in 4, marked anæmia in 1. For other cases see "Spinal caries."
					3			Paraplegia in 2, one of whom transferred to Surgical side for laminectomy, followed by death.
				3				Delusions of persecution in 1.
				6				
				2	3	1		For the fatal case see Special Abstracts.
				1	1			
				1				
				1				In-patient also in 1897.
				1				History of syphilis.
						1		
1	1	5						

TABLE III—

DISEASE.	Number of cases.			Age.							Duration of residence.									
	Total.	M.	F.	Under 5	5-10	-20	-30	-40	-50	-60	Above 60	Under 1 week	Wks. 1-2	Wks. 2-4	Mths. 1-2	Mths. 2-4	Mths. 4-6	Mths. 6-9	Mths. 9-12	Above 1 year.
VIII. DISEASES OF THE NERVOUS SYSTEM—<i>continued.</i>																				
Neuralgia.	2	1	1	...	...	...	1	...	...	1	...	...	...	1	1	...	...	...	...	...
Alcoholic neuritis . . .	6	3	3	...	...	...	1	2	3	...	...	1	...	...	4	1	...	...	...	...
Peripheral neuritis . . .	3	3	...	...	...	...	1	1	1	...	...	...	...	1	1	1	...	...	...	...
Brachial neuritis	1	1	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...
Pressure on thoracic nerve-roots	1	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Pseudo-hypertrophic paralysis	2	2	...	2	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...
IX. POISONING.																				
Alcoholism	18	14	4	...	...	1	4	6	3	4	...	7	3	4	4	...	...	...	...	...
Plumbism.	11	10	1	...	...	...	1	6	4	...	...	4	3	2	2	...	...	...	...	...
Opium	5	4	1	1	...	1	2	...	...	1	...	5	...	...	...	...	...	...	...	...
Oxalic acid	3	3	...	...	...	...	...	...	1	1	1	1	1	1	...	...	...	...	...	...
Liniment	3	1	2	...	...	...	...	1	2	...	...	2	1	...	...	...	...	...	...	...
Creolin	2	1	1	1	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Nitric acid	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
Hydrochloric acid . . .	3	1	2	...	...	...	1	1	1	...	...	1	1	...	1	...	...	...	...	...
Phosphorus	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Ammonia	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
Carbolic acid	4	...	4	...	1	...	1	2	...	...	...	2	2	...	...	...	...	...	...	...
Insect powder	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Paraffin	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Caustic soda	1	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Coke fumes	2	2	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	...	...	...
Belladonna	1	...	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...

continued.

Cured.		Re- lieved.		Unre- lieved.		Died.		REMARKS.
M.	F.	M.	F.	M.	F.	M.	F.	
		1	1					
	1	3	1		1			In 1 case probably combined lead and alcoholic neuritis.
		2				1		Of cases discharged: 1 had been an in-patient in 1897, cause doubtful; in the other probably due to influenza. In the fatal case: pulmonary renal and meningeal tuberculosis.
		1						
		1						Pain in area of distribution of fifth, sixth, and seventh intercostal nerves, followed by anæsthesia of same area.
				2				
12	2	2	2					Delirium tremens in 1, delusions in 1, mitral disease in 2.
8	1	2						1 plumber, 1 blacksmith, 1 metal polisher, 1 lead dipper, 1 label writer, 1 carpenter, 1 coachman. Colic in 8, paralysis in 2, headache in 1, gout in 1.
3	1					1		Of cases discharged: accidental in 3, suicidal in 1. In the fatal case: hanging also attempted; lungs highly œdematous.
2						1		Suicidal in all. In the fatal case: necrosis of mucous membrane of pharynx and œsophagus; intense inflammation of mucous membrane of stomach, with scattered patches of necrosis.
1	2							Suicidal in 1. Soap, horse, and camphor liniments.
1	1							Accidental.
1								Accidental.
1				1		1		Suicidal in the case unrelieved; transferred to Surgical side with stricture of œsophagus; dilated with bougies. No P.M. in fatal case.
						1		Child said to have sucked matches. P.M.—Liver enlarged and pale. Microscopically: extreme fatty degeneration. Heart also fatty.
1								Accidental.
	4							Suicidal in 3.
	1							Suicidal.
	1							
	1							
	2							
	1							Delirium.

TABLE IV.—*Table of Mortality.*

DISEASE.	Total.		Age.										Mortality per cent.
	Admis- sions.	Deaths.	Under 2	2-5	10	20	30	40	50	60	70	Above 70	
1. GENERAL DISEASES.													
Measles	25	2	2										8
Influenza	50	1						1					2
Enteric fever ¹													
Diphtheria ¹													
Diphtheritic paralysis	8	2			1			1					25
Whooping-cough	4	1	1										25
Pyæmia	1	1								1			
Diabetes mellitus	12	2					1	1					16·66
Purpura	7	3		1		2							42 85
Pernicious anæmia	1	1									1		
Leucocythæmia	4	2						1	1				50
General tuberculosis	6	6	2		1	2	1						100
Glanders	1	1					1						
Disseminated sarcoma	2	1					1						50
Disseminated carcinoma	1	1							1				
2. DISEASES OF THE RESPIRATORY SYSTEM.													
Acute bronchitis	20	1	1										5
Broncho-pneumonia	29	11	8		1		1	1					37·93
Acute pneumonia	75	15	1	2			5	2	2	3			20
Phthisis	53	20			1	2	6	2	4	4		1	37·73
Empyema	18	7	3		1					2	1		38·88
Hæmoptysis	15	1					1						6·66
Bronchiectasis	10	3		1		1				1			30
Malignant disease of lung	1	1				1							
Mediastinal growth	5	1									1		20
3. DISEASES OF THE CIRCULATORY SYSTEM.													
Pericarditis	7	1			1								14·28
Adherent pericardium	2	1					1						50
Mitral stenosis	2	1					1						50
Mitral incompetence	26	1							1				3·84
Mitral stenosis and incompetence	34	3						2	1				8·82
Aortic disease	6	3					1	1	1				50
Aortic and mitral disease	35	6					2	2	2				17·14
Ulcerative endocarditis	16	12			1	6	1	3	1				75
Thoracic aneurysm	27	5						1		1	3		18·51

¹ See Special Abstract.

TABLE IV—*continued.*

DISEASE.	Total.		Age.										Mor- tality per cent.
	Admis- sions.	Deaths.	Under 2	2-5	10	20	30	40	50	60	70	Above 70	
3. DISEASES OF THE CIRCULATORY SYSTEM— <i>continued.</i>													
Tachycardia	4	1	...	...	...	...	1	...	...	...	...	...	25
General arterial disease	5	1	...	...	...	...	...	...	...	1	...	...	20
Pulmonary arteritis	1	1	...	...	1	...	...	...	...	...	...	...	...
4. DISEASES OF THE DUCTLESS GLANDS.													
Exophthalmic goitre	9	3	...	...	...	1	1	1	...	...	...	...	33·33
Addison's disease	5	3	...	...	...	...	...	2	1	...	...	...	60
5. DISEASES OF THE DIGESTIVE SYSTEM.													
Stricture of œsophagus	10	2	...	...	...	...	...	...	1	...	...	1	20
Gastric ulcer	50	9	...	...	...	...	6	1	1	1	...	...	18
Malignant disease of stomach . .	16	4	...	...	...	...	...	...	2	2	...	...	25
Diarrhœa and vomiting	28	5	5	...	...	...	...	...	...	...	...	...	17·85
Diarrhœa	18	1	...	1	...	...	...	...	...	...	...	...	5·55
Ulcerative colitis	3	3	...	...	...	...	...	3	...	...	...	...	100
Intussusception	8	5	4	...	...	...	1	...	...	...	...	...	62·5
Volvulus	1	1	...	...	...	...	...	1	...	...	...	...	...
Obstruction, other forms	5	3	...	1	1	...	...	1	...	...	...	...	60
Malignant disease of intestine . .	24	9	...	...	...	...	1	1	1	3	2	1	37·5
Inflammation of vermiform ap- pendix	72	15	...	...	...	8	6	...	1	...	...	...	20·83
Acute peritonitis	2	2	...	...	...	...	1	1	...	...	...	...	100
Cirrhosis of liver	32	6	...	...	...	1	...	...	2	3	...	...	18·75
Perihepatitis	2	2	...	...	...	...	...	...	1	1	...	...	100
Cholelithiasis	19	2	...	...	...	...	...	...	1	...	1	...	10·52
Acute yellow atrophy of liver . .	2	2	...	...	...	...	1	1	...	...	...	...	100
Malignant disease of liver	9	6	...	...	...	...	2	...	...	1	3	...	66·66
Abdominal tumour	11	2	...	...	...	...	...	1	1	...	...	...	18·18
6. DISEASES OF THE GENITO- URINARY SYSTEM.													
Acute nephritis	6	1	...	...	1	...	...	...	...	...	...	...	16·66
Chronic nephritis	58	14	...	...	1	1	2	4	2	1	3	...	24·13
Pyonephrosis	3	2	...	...	...	...	...	...	1	...	1	...	66·66
Hæmorrhagic kidney	1	1	1	...	...	...	...	...	...	...	...	...	...

TABLE IV—*continued.*

DISEASE.	Total.		Age.										Mor- tality per cent.
	Admis- sions.	Deaths.	Under 2	2-5	10	20	30	40	50	60	70	Above 70	
7. DISEASES OF THE NERVOUS SYSTEM.													
Acute meningitis	2	2	...	...	2	...	...	...	...	...	...	...	100
Chronic meningitis	2	2	2	...	...	...	...	...	...	...	...	...	100
Tubercular meningitis	6	6	2	2	...	1	1	...	...	...	...	...	100
Hemiplegia	28	2	...	...	...	...	...	1	1	...	...	...	7·14
Cerebral hæmorrhage	9	7	...	...	1	...	...	1	4	...	1	...	77·77
Intra-cranial tumour	11	5	...	1	1	1	1	1	...	...	...	...	45·45
Cerebral abscess	3	2	...	...	...	1	1	...	...	...	...	...	66·66
Epilepsy	20	2	...	...	...	1	...	?	...	...	...	...	10
Infantile convulsions	2	1	1	...	...	...	...	...	...	...	...	...	50
Myelitis	8	2	...	...	...	1	...	1	...	...	...	...	25
Disseminated sclerosis	6	1	...	...	...	1	...	...	...	...	...	...	16·16
? Landry's paralysis	1	1	...	...	...	...	...	1	...	...	...	...	...
Peripheral neuritis	3	1	...	...	...	1	...	...	...	...	...	...	33·33
8. POISONING.													
Opium	5	1	...	...	...	1	...	...	...	...	...	...	20
Phosphorus	1	1	1	...	...	...	...	...	...	...	...	...	...
Oxalic acid	3	1	...	...	...	...	...	1	...	...	...	...	33·33
Hydrochloric acid	3	1	...	...	...	...	1	...	...	...	...	...	33·33
9. MISCELLANEOUS.													
Marasmus	10	10	10	...	...	...	...	...	...	...	...	...	100
10. DISEASES OF THE FEMALE GENERATIVE ORGANS.													
Pelvic peritonitis	4	2	...	...	...	1	1	...	...	...	...	...	50

TABLE V.—*Cases of Infectious Disease originating in the Hospital.*

Initials.	Sex.	Age.	Disease for which admitted.	Disease originating in hospital.	Date of onset.	Duration of previous residence in hospital.	Result.	Remarks.
F. G.	M.	Years.	Broncho-pneumonia	Measles	Feb. 21	21 days	D. Feb. 27	Contracted in Victoria Ward.
W. G. S.	M.	1	"	"	Feb. 21	26 "	D. Mar. 4	Ditto.
R. L.	M.	3	Tubercular knee	"	Feb. 18	30 "	C. Mar. 14	Ditto.
H. S.	M.	3	Abscess of hip	"	Feb. 7	3 months	C. " 14	Ditto.
G. F. L.	M.	3	Empyema	"	Feb. 17	28 days	C. " 15	Ditto.
F. B.	M.	4	Spinal caries	"	Feb. 22	49 "	C. " 18	Contracted in Beatrice Ward.
A. F.	M.	4	Talipes	"	Feb. 25	24 "	C. " 19	Contracted in Victoria Ward.
E. L.	M.	1	"	"	Apr. 10	29 "	C. Apr. 28	Ditto.
W. B.	M.	2½	"	"	Apr. 10	29 "	C. May 7	Ditto.
E. G. C.	M.	2	Hydrocephalus	"	Apr. 26	33 "	C. " 20	Ditto.
R. C.	F.	3	Wound of hand	"	Jan. 1	15 "	C. Jan. 28	Contracted in Elizabeth Ward.
H. T.	F.	3	Tubercular hip	"	Feb. 6	4 months	C. Mar. 14	Contracted in Victoria Ward.
A. G.	F.	5	Fractured femur	"	Jan. 20	31 "	C. Feb. 15	Ditto.
E. W.	F.	1	Burn	"	Feb. 20	31 "	C. Mar. 18	Ditto.
C. A.	F.	3	Lymphangiectasis	"	Feb. 21	3 weeks	C. " 19	—
— K.	F.	5	—	"	Feb. 27	—	C. " 20	Nurse.
— P.	F.	26	—	"	Feb. 27	—	C. May 1	Ditto.
— W.	F.	26	—	"	Apr. 17	—	C. " 9	Ditto.
F. T.	F.	26	Burn	"	May 2	—	C. " 9	Contracted in Alexandra Ward.
— T.	F.	26	—	"	Apr. 10	33 days	C. " 20	Nurse.
L. P.	F.	8 mos.	Broncho-pneumonia	"	May 7	—	C. " 20	Contracted in Victoria Ward.
R. P.	F.	3	Diphtheria	"	Apr. 24	31 days	C. " 26	Contracted in Luke Ward.
A. E.	M.	3	Burn	Scarlet fever	May 6	29 "	C. July 6	Contracted in Victoria Ward.
— T.	F.	26	—	"	Aug. 24	4 "	C. Nov. 7	Nurse.
— D.	F.	26	—	"	Sept. 11	—	C. " 11	Ditto.
					Sept. 10	—	C. " "	

Initials.	Sex.	Age.	Disease for which admitted.	Disease originating in hospital.	Date of onset.	Duration of previous residence in hospital.	Result.	Remarks.
E. M.	F.	Years. 32	Neurasthenia	Enteric fever	Feb. 5	19 days	C. Apr. 25	Contracted in Charity Ward.
— H.	M.	26	—	"	Oct. 25	—	C. Dec. 21	House physician.
H. C.	M.	40	—	"	Nov. 3	—	C. " 24	College house butler.
G. L.	F.	26	—	"	July 22	—	C. Oct. 25	Nurse.
W. B.	M.	13	Disease of lung	Diphtheria	Jan. 31	28 days	C. Feb. 25	Contracted in Arthur Ward.
— H.	M.	26	—	"	Feb. 19	—	C. Mar. 19	House physician; also see enteric fever above.
H. E. H.	M.	26	—	"	1897	—	C. Apr. 23	House physician.
W. B.	M.	12	Myelitis	"	May 20	11 days	C. Aug. 13	Contracted in George Ward.
J. B.	M.	2	Phthisis	"	Aug. 20	14 "	C. Sept. 7	Contracted in Victoria Ward.
J. D.	M.	3	Tubercular knee	"	Oct. 19	42 "	C. Nov. 5	Contracted in Victoria Ward.
G. D.	M.	2	Pneumonia	"	Sept. 26	13 "	C. " 13	Ditto.
— B.	F.	26	—	"	Jan. 4	—	C. Jan. 20	Nurse.
— L.	F.	26	—	"	Dec. 26, 1897	—	C. " 22	Ditto.
R. L.	F.	6	Hip disease	"	Feb. 12	8 days	C. Mar. 12	Contracted in Victoria Ward.
E. E.	F.	39	Appendicitis	"	Apr. 7	24 "	C. Apr. 27	Contracted in Elizabeth Ward.
E. E.	F.	28	Mastitis	"	Apr. 7	14 "	C. July 28	Contracted in Alexandra Ward.
A. J.	F.	1	Injury to nose	"	Oct. 17	6 "	C. Nov. 5	Contracted in Victoria Ward.
H. S.	M.	47	Perihepatitis	Erysipelas	Feb. 5	4 months	D. Feb. 16	Contracted in Arthur Ward.
J. S. K.	M.	48	Pleurisy	"	May 13	39 days	Tr. May 13	Ditto.
M. L.	M.	22	Malaria	"	July 19	31 "	Tr. July 19	Ditto.
J. B.	M.	52	Perihepatitis	"	Oct. 12	54 "	D. Oct. 19	Ditto.

SPECIAL ANALYSES AND ABSTRACTS.

I. GENERAL DISEASES.

1. DIPHTHERIA.

The antitoxin treatment was continued during 1898, and the following tables are prepared and arranged in the same way as in last year's report. During the year 98 cases of diphtheria were admitted, and of these 77 were treated with antitoxic serum. Of the cases not so treated, 5 were admitted in a moribund condition, others were very mild attacks, several in adults.

Serum prepared at the laboratories of the Royal Colleges of Physicians and Surgeons was again used. The following tables, unless stated otherwise, refer to these 77 cases.

Seventy-one of the 77 cases were submitted to a bacteriological examination, and in 61 of them diphtheria bacilli were found. (See Clinical Laboratory Report.)

Since the introduction of antitoxic serum at St. Thomas's in January, 1895, 400 cases of diphtheria have been under treatment, serum being injected in 364 cases. The total number of deaths, including 9 cases moribund on admission and not treated with serum was 143—a mortality of 35·75 per cent. The average mortality for 10 years preceding 1895 was 49·8 per cent.

TABLE I.—*Cases treated with antitoxic serum in 1898.*¹

Ages.	Duration of disease.												Mortality per cent.		
	1 day.		2 days.		3 days.		4 days.		5 or more days.		Undetermined.			Total.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		Cases.	Deaths.
Under 1 year	3	2	3	2	...	...	...	...	2	1	...	...	8	5	62.5
1-2 years	1	...	4	1	3	1	...	...	1	...	2	...	11	2	18.18
2-3 "	3	...	1	...	...	...	1	...	7	3	...	...	12	3	25
3-4 "	6	...	2	1	1	...	...	...	5	3	1	...	15	4	26.66
4-5 "	1	...	...	...	2	...	...	...	3	...	2	...	8	...	...
5-10 "	2	...	3	...	1	...	...	...	8	1	2	2	16	3	18.75
10-15 "	...	...	...	...	2	1	2	...	...	...	...	...	4	1	25
15-20 "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20 and upwards	...	...	1	...	...	...	...	...	...	...	2	...	3	...	...
Total	16	2	14	4	9	2	3	...	26	8	9	2	77	18	...
Mortality per cent.	...	12.5	...	28.57	...	22.22	...	...	...	30.76	...	22.22	...	23.37	...

¹ Total mortality, including cases not treated with antitoxic serum—22 deaths out of 98 cases = 23.46 per cent.

TABLE II.—*Mortality for different age periods during 1898.*

Age.	Cases.	Deaths.	Mortality per cent.
Under 5 years	54	14	25·92
„ 10 „	70	17	24·28
„ 15 „	74	18	24·32
All ages	77	18	23·37

Of these cases—

70·13 per cent. were patients under 5 years of age.

21·03 „ „ between 5 and 10 years of age.

5·06 „ „ between 10 and 15 years of age.

3·89 „ „ over 15 years of age.

TABLE III.—*Laryngeal diphtheria and tracheotomies.*

Ages.	Laryngeal cases.			Tracheotomies.		
	Cases.	Deaths.	Mortality per cent.	Cases.	Deaths.	Mortality per cent.
Under 1 year	6	5	83·33	5	5	100
1—2 years	8	...	...	5	...	...
2—3 „	11	3	27·27	6	3	50
3—4 „	13	4	30·76	7	2	28·57
4—5 „	8	1	12·5	5	1	20
5—10 „	9	2	22·22	7	2	28·57
10—15 „	...	...	...	...	...	...
15 and upwards	1	...	...	...	...	...
Total . . .	56	15	26·78	35	13	37·14

The percentage of tracheotomies was 60·25.

The larynx was in no case involved after admission.

TABLE IV.—*Complications arising during 1898.*

Ordinary complications.	No. of cases.	Percentage
Albuminuria	13	16·85
Paralysis	12	15·58
Broncho-pneumonia	16	20·77
Hæmorrhagic rash	1	1·29
Nephritis	2	2·59
Convulsions	1	1·29
Otitis media	2	2·59
Conjunctivitis	1	1·29

In addition to the above, 1 case contracted measles, and 1 whooping-cough. In 1 case scarlet fever co-existed with diphtheria on admission.

Complication due to antitoxin.	No. of cases.	Percentage.
Rash	11	14·22

TABLE V.—*Amount of antitoxin used and dosage.*

	Amount given in units.	Number of patients.	Average amount per case.
Fatal cases	145,000	18	8055
Recoveries	392,000	59	6644
All cases	537,000	77	6974

In only three cases was a second dose of antitoxic serum given. In the latter half of the year the dose adopted almost as a routine was 8000 units.

The average duration of life after admission in fatal cases during the year was 9·66 days.

2. ENTERIC FEVER.

During 1898 the number of cases of enteric fever treated to a termination was 50, and the deaths were 10, giving a mortality of 20 per cent. Included in this series are 11 cases admitted during 1897, viz. August, 1; October, 3 (with 1 death in January, 1898); November, 8; and December, 2. Included also in this series are four cases, all ending in recovery, in which the disease originated in the hospital, 1 house physician, the college house butler, 1 probationer, and 1 patient admitted for neurasthenia. (See Table V.)

The admissions in 1898 were 59, and were distributed as follows: January, 1; February, 1; March, 2 (1 death); April, 2 (1 death); May, 1; June, 1; July, 3 (1 death); August, 3 (1 death); September, 5; October, 19 (3 deaths); November, 10; December, 13 (4 deaths, all in 1899).

Of these 59 admissions, 24 remained in hospital in 1899, and with 4 exceptions resulted in recovery.

The average duration of residence of the 49 cases treated to a termination (not

including the case of neurasthenia) was 51·08 days; of those which terminated in recovery, 59 days; and of those which proved fatal, 20·1 days.

The details as to age and sex incidence are given in Table III of this report.

Of the deaths, 2 resulted from perforation of the bowel, occurring on the 12th and 26th day of the disease. In 2 cases complicated with pneumonia, death occurred on the 17th and 26th days respectively. One occurred in the 17th week from pulmonary tuberculosis and aortic incompetence. The remaining 5 died from exhaustion and cardiac failure, associated with hæmorrhage in 3 (death at the end of the 3rd, 4th, and 5th weeks of disease), uncomplicated in 2 at the end of the 6th week.

Seventeen cases came under observation in the 1st week of the disease, 22 in the 2nd, and 3 later.

The onset in 9 cases was acute.

A profuse eruption was present in 11, a scanty eruption in 35, absent in 5. An erythematous rash appeared in 2, a hæmorrhagic and pustular rash in 1.

Splenic enlargement was detected in 37 cases, absent in 14.

In 33 cases the tongue was described as typical. Diarrhœa was present in 17 cases, constipation in 28. Vomiting occurred during the course of the disease in 9 cases.

In 6 cases hæmorrhage from the bowel was observed, the earliest instance being on the 10th day, and the latest on the 27th day of the disease. Epistaxis was noticed in 4 cases.

Laryngitis was found in 2 (fatal cases). Bronchitis was more or less severe in 16. Pneumonia occurred in 3 cases, pleurisy in 3.

Transient albuminuria was present in 9 cases, acute nephritis occurred in 1; albumen was also found in the urine of 8 of the fatal cases. Retention of urine occurred in 2 cases.

In one case diphtheria coexisted with enteric fever on admission.

Periostitis of tibia occurred 4 times; suppurative otitis media occurred once; cutaneous abscesses developed in 2 cases.

Abdominal pain was present in 17 cases.

Headache was a prominent symptom in 22 cases, delirium was present in 11, with marked muscular tremors in 4.

The temperature exceeded 104° F. in 22 cases. The duration of fever whilst under observation varied from 2 to 44 days, the average duration being 16·6 days, and the average maximum temperature 104° F. The average maximum temperature of those who recovered was 103·8°; of those who died 104·3°.

Rigors occurred during the progress of the disease in 2 cases, in one on the 33rd and 41st days, in the other on the 19th and 23rd days of the disease. Femoral thrombosis occurred in 2 cases.

True relapse occurred in 8 cases. The days of the relapse were 21st, 28th, 34th, 40th, 41st, 51st, 52nd, and in one case, in which 2 relapses occurred, on the 40th and 77th days. The duration of the relapse varied from 6 to 28 days, the average duration being 13·6 days. The duration of the apyrexial period varied from 7 to 14 days, the average being 9·2 days; in the case with 2 relapses there was no interval of apyrexia between the original attack and the 1st relapse, but 8 days intervened between the 1st and 2nd relapse. The maximum temperature during relapse varied from 101·8° to 106·6°, the average maximum being 103·4°.

Of the fatal cases, in 7 the typical ulceration of the colon was found. Of the remaining 3, in 1 the ulcers had healed, death being due in the 17th week to pulmonary tuberculosis, in 2 no ulceration was present. In 4 the colon also was ulcerated. Pneumonia was present in 2.

For the results of Widal's serum test and of the diazo reaction, see the Clinical Laboratory Report.

3. ENTERIC FEVER; PERFORATION; SUTURE OF ULCER; DEATH.

J. S—, male, æt. 41, admitted October 14th, died October 15th, 1898. Illness commenced suddenly 11 days before admission with severe abdominal pain and diarrhœa. He kept at his work for 5 days, and then went to bed for 1 day; after that he was up and about every day in spite of his doctor's orders. The diarrhœa continued, and on two occasions the stools were blood-tinged. There was slight cough, and on two nights he had been delirious. On the morning of admission he returned to work, but was so ill that he was brought up to the hospital.

On admission he looked very ill. The abdomen was distended and tender, especially in the epigastric region; the abdominal walls were rigid, and respiratory movements impaired. The edge of the liver could be felt 2 inches below the costal margin. The spleen was enlarged, and there was a copious rose-rash.

Three hours after admission he was suddenly seized with intense pain in the abdomen, which speedily became quite rigid and motionless; his face became very anxious, and he lay with his legs drawn up. The abdomen was opened; the intestinal coils were very injected. Three perforations were discovered, each about 6 inches from the other; the gut was invaginated at each point and sutured, and the abdominal cavity washed out. Death occurred 7 hours later.

Post-mortem.—Free gas was present in the abdomen, and there was early peritonitis. The ileum showed extensive ulceration; the sloughs had all separated. The small intestine was quite water-tight under considerable pressure; the uppermost of the perforated ulcers was situated $4\frac{1}{2}$ feet from the ileo-cæcal valve.

4. ACUTE LEUCOCYTHÆMIA; DEATH.

W. N—, male, æt. 47. Labourer. Admitted November 11th, died November 16th, 1898.

Family history good. Patient had an attack of gout at age of 30. One year before admission had swellings in the groin, which disappeared after a few weeks. No history of syphilis; moderate as regards alcohol.

He first felt unwell one month before admission; a week later he gave up work; two weeks before admission he noticed abdominal pain, which was persistent and unaffected by food. At the same time he noticed a small swelling on the left side of his neck, which grew rapidly. Within a few days a similar swelling appeared on the right side, and others in the groin; his abdomen also increased in size. Sleep had been disturbed, and he had experienced great diffi-

culty in breathing in any but the erect posture. Swelling of left arm and leg noticed one week. No vomiting and no hæmorrhages.

On admission there was a large mass of glands in the right side of the neck, extending from the clavicle to the angle of the jaw; a smaller mass was present on the left side. Small glands could be felt below the right clavicle. In both axillæ large glands were present. The left arm was greatly swollen. Glands could be felt in both groins, and the left leg was œdematous from the knee downwards. The abdomen was distended, and the liver could be felt as low as the umbilicus. Hard tender masses could be felt in both iliac fossæ. On inspiration the spleen could be felt one inch below the costal margin. Numerous distended veins were visible coursing down the front of the chest, the blood-current being from above downwards. Heart and lungs normal. Urine acid; sp. gr. 1012; trace of albumen; uratic deposit. Ocular fundi normal.

A blood count showed that the number of the red cells was 4,640,000, and of leucocytes 130,625 per c.mm. Of the latter, 85 per cent. were lymphocytes.

The patient grew rapidly weaker; the glandular tumours were very painful. He slept badly, and died 5 days after admission.

Post-mortem.—The œsophagus was pressed upon by a mass of large glands situated at the bifurcation of the trachea, one projecting into the lumen of the tube. The lungs showed recent hæmorrhages and two or three infarcts. The heart and great veins were markedly distended with blood. The liver weighed 7 lb. 5 oz.; its surface was smooth, and it had a pale-orange colour. The spleen was much enlarged, weighing 2 lb. 5 oz. Its section was studded with numerous reddish-yellow lymphoid masses. The kidneys also were enlarged. The lymphatic glands everywhere were enlarged, the cervical groups especially. The mediastinal, bronchial, mesenteric, and retro-peritoneal were all greatly enlarged, the two latter groups forming quite a large tumour occupying the centre of the abdominal cavity.

5. GLANDERS; DEATH.

G. H—, male, æt. 32. Carman. Admitted July 5th, died August 6th, 1898. Family and previous history good. Three months before admission he had suffered from pain in the right side of the abdomen shooting down the leg, which laid him up for about three weeks. This pain recurred about a fortnight before admission, and was the reason of his coming to the hospital. He had noticed that he was losing flesh.

On admission there was marked tenderness over the whole of the right side of the abdomen. The edges of both the liver and spleen could be felt on inspiration. Thoracic viscera normal. Urine normal. Serum and diazo reactions negative. The patient had a daily rise of temperature to 102°–103°; the abdominal pain persisted, and no further symptoms developed. On July 20th he was examined under an anæsthetic, but nothing abnormal could be felt in the abdomen. On July 25th he complained of pain in right calf and ankle. The temperature assumed a continuous type, varying from 102° to 103°, and he complained of pains in left leg and face. By the beginning of August there

was a definite cellulitis of the right side of his face, and on August 2nd a small pustule appeared in the swelling; the following day the face was still more swollen, a papular eruption appeared over the arms, and rapidly became vesicular and pustular. The nose was unaffected. During the last few days the eruption involved the trunk, fluctuating subcutaneous masses appeared, the patient grew rapidly weaker, with occasional delirium, and several shallow ulcers developed on the patch of facial cellulitis.

Post-mortem.—There were a large number of flat-topped pustules scattered over the body, especially numerous over the upper extremities. In the right temporal region and around the right orbit were numerous shallow ulcers. Here and there were fluctuating swellings, which, on being incised, were found to be abscesses; some were subcutaneous and others intra-muscular. The lungs were studded with a large number of rather hard nodules, varying in size from a hemp-seed to a pea. Some were pink in colour, others had a white caseous appearance, but none had broken down; many were surrounded by a markedly hyperæmic zone. Microscopically these nodules showed an intense localised hæmorrhagic inflammation.

The stomach showed several small shallow ulcers. The lymphatic glands of the arm were slightly enlarged.

Pus taken during life from a pustule on the face and post mortem from an intra-muscular abscess yielded, on cultivation, pure cultures of the glanders bacillus.

II. DISEASES OF THE CIRCULATORY SYSTEM.

1. ADHERENT PERICARDIUM; DEATH.

A. D—, male, æt. 21. Admitted September 1st, discharged November 4th, 1898. Family history good. Was invalided home from the navy at the age of 12 for rheumatic fever. Subsequently entered the army, from which he was also invalided for the same cause. From that time onwards he had suffered more or less continually with his heart, and had several fresh attacks of rheumatism. During the three months preceding admission he had been much worse, and his legs and abdomen had commenced to swell.

On admission he was very cyanosed and in great distress. The area of cardiac dulness was enormous, commencing at the level of the 3rd intercostal space, and reaching on the left to nearly the anterior axillary line, and on the right side to the right nipple-line. On auscultation a loud blowing systolic murmur was audible over the entire cardiac area; it was heard most plainly at the apex, and was conducted out into the axilla. The apex beat was very diffuse, and could be felt $1\frac{1}{2}$ inches outside the nipple in the 6th space. The liver extended for a hand's-breadth below the costal margin, and was tender on palpation. The

spleen could also be felt. Both lungs were œdematous at the bases; there was moderate ascites and œdema. The urine contained albumen.

On the day of admission six leeches were applied over the hepatic area, and bleeding encouraged by hot fomentations. As no great benefit resulted, he was bled to the extent of 12 ounces. This afforded him the greatest relief; the cyanosis practically disappeared, the œdema subsided, and the right side of the heart diminished greatly in size, the dulness on September 7th reaching to within one inch of the right nipple-line, while a few days later it only extended half an inch beyond the right sternal edge. On September 22nd a diastolic murmur was heard for the first time; audible most plainly at the left base. At times it was very loud, and occasionally audible at the apex, where it assumed a faint rumbling character. He was given digitalis and strychnine, and by the time he left the hospital he had improved greatly, and the œdema and albuminuria had disappeared.

After leaving the hospital he was fairly well for a week or two; the breathing then became distressed, the œdema returned, and he suffered from headache and palpitation.

Readmitted November 30th. Died December 17th.

The area of cardiac dulness had again increased, reaching from a point within a quarter of an inch of the right nipple to a point $2\frac{1}{2}$ inches outside the left nipple. The apical systolic murmur was still very loud; the diastolic murmur also could be heard to the left of the sternum. The abdomen was distended, the legs œdematous, and the urine contained albumen. There were several patches of ecchymosis on the chest and abdomen. On December 6th the abdomen was tapped, and 10 pints of fluid withdrawn. On December 16th the pulse was collapsing in character.

Post-mortem.—The two layers of the pericardium were densely adherent; the outer layer was also adherent to the sternum in front and to the inner surfaces of both lungs. The heart was greatly enlarged, weighing 30 ounces. All the cavities were enlarged and the walls thickened. The cusps of the aortic valve were normal, but slight leakage occurred when the water test was applied. The first part of the aorta was very small, and it was entirely surrounded by the fibrous thickening consequent on the old pericarditis. The mitral valve measured over 6 inches in circumference; the cusps were not thickened, and showed no evidence of old endocarditis. The pleuræ were fairly free from adhesions; on the right side there were some on the posterior aspect, and both were adherent to the pericardium.

There was a moderate amount of ascitic fluid. The abdominal viscera showed the ordinary signs of passive congestion.

2. PROBABLE ULCERATIVE ENDOCARDITIS; RECOVERY.

J. F—, female, æt. 18, admitted April 3rd, discharged June 10th, 1898. Family history: father said to have heart disease, one sister subject to fits.

Previous history: had enjoyed fair health; occasional transient swelling of legs. No history of scarlet fever. During the three months preceding admission had been subject to one or two attacks of pain and swelling in the

knees, for which she had been confined to bed. Three weeks before admission she attended the out-patient department for what appeared to be simple jaundice, which readily yielded to treatment. On March 30th she became swollen about the face, and two days later in the legs. On April 1st she complained of severe frontal headache, and about the same time she was troubled with conjunctivitis.

On admission she was a well-nourished girl; face very puffy; purulent conjunctivitis and œdematous and inflamed eyelids; no optic neuritis; the area of cardiac dulness was normal and no murmurs were audible; lungs normal; nothing abnormal in the abdomen; legs œdematous. Urine acid, sp. gr. 1020, albumen one eighth; no blood, no casts. Temp. 104°.

On April 7th a definite systolic murmur became evident at the apex, traceable as far outwards as the mid-axillary line. The blood was examined for Vidal's test with a negative result; the diazo reaction was, however, positive; at no time, however, were there any spots, nor was the spleen enlarged. On April 12th loss of power and anæsthesia developed in the right leg, but passed off in about 24 hours. There was a daily rise of temperature to 104° or 105°; she was constantly drowsy and apathetic, the trace of albumen persisted, the systolic murmur increased in intensity, and it was decided to use antistreptococcic serum. The first injection of 10 c.c. was given on April 17th, and this amount was given daily until April 25th, then on April 27th, and for the last time on April 29th. At the same time sulphocarbolate of soda was given in 15-grain doses three times a day. A culture was taken from the blood, and a growth of a coccus obtained, probably *Staphylococcus pyogenes albus*. On April 20th, the temperature, which hitherto had daily reached 104° or 105°, only rose to 101·4°; for the next ten days it rose to 101°—102°, and then sank to normal. On April 21st signs of consolidation appeared at the left base; these cleared up gradually during the following week. At the same time the systolic murmur became fainter and fainter. From time to time occasional small pustules appeared over the body. From May 5th onwards no cardiac murmur could be detected, and the patient herself improved rapidly; the urine became free from albumen, and on June 10th the patient was sent to a convalescent home apparently cured.

3. ULCERATIVE ARTERITIS OF PULMONARY ARTERY; PULMONARY INFARCTION; DEATH.

R. W—, female, æt. 6. Admitted May 18th, died May 21st, 1898.

Family history: mother healthy; history of phthisis on father's side. Four other children alive and healthy. She had always been a delicate child. As a baby was said to have suffered from "consumptive bowels;" measles at the age of 2. At the age of 4 was in this hospital for broncho-pneumonia. Five weeks before admission she began to be troubled with diarrhœa, and wasted considerably. One week before admission she complained of pains in the limbs; she had been restless and drowsy; no vomiting.

On admission she was very emaciated; the bony thorax showed evidence of rickets, and there was retraction of the lower ribs on respiration. Cardiac dulness commenced at the level of the 4th rib, and was bounded on the right by

the left sternal edge. Pulse 110 per minute. Nothing abnormal detected in the cardiac sounds. The right lung was resonant in front and behind. Resonance was impaired over the upper lobe of the left lung anteriorly, but no impairment was detected behind. The breath sounds were harsh everywhere except over the area of dulness at the left apex, where they were very indistinct; over this area, moreover, the cardiac sounds were conducted with great distinctness. No adventitious sounds. Respirations 60 per minute. Temp. 96.4°. Both the liver and spleen could be felt descending below the costal margin on respiration. The child grew rapidly weaker; a trace of albumen appeared in the urine; the temperature rose each day to between 102° and 103°; she perspired profusely, and death occurred three days after admission.

Post-mortem.—The pericardium overlying the pulmonary artery was injected and covered with a thick layer of fibrinous lymph. A swelling, somewhat globular in shape, occupying the left branch of the pulmonary artery immediately beyond the origin of the right branch, was visible. The interior of this swelling was occupied by a partly decolourised thrombus of brownish-yellow tinge, and firmly adherent to the artery over a limited area. The thrombus entirely filled the interior of the vessel, and continued for some distance along its branches. Where the thrombus was adherent, the wall of the vessel appeared to be ulcerated, conveying the impression of being the primary lesion. There was no evidence of disease of the neighbouring glands or other structures. A large infarct occupied the apex of the left upper lobe, clearly the result of the blocking of the artery; it was of a dark red colour. There was diffuse broncho-pneumonia of the left lower lobe. Several recent dark red infarcts were present in the right lung. The heart itself was normal. No cause for the pulmonary arteritis was discovered; several joints and the petrous bones were examined but found to be healthy.

III. DISEASES OF THE DIGESTIVE SYSTEM.

APPENDICITIS; INFRA-HEPATIC ABSCESS; ABSCESS OF LIVER; OPERATIONS AND DEATH.

R. J—, male, æt. 26. Tin worker. Admitted February 1st, died March 27th, 1898. Mother said to suffer with gall-stones. Previous health good with the exception of two attacks of influenza. In November, 1897, he had an attack of appendicitis for which he had to stay in bed for 3 weeks. On January 16th he was again seized with pain in the right iliac fossa, for which he consulted a doctor and remained in bed; the acute pain lasted for 3 days and then subsided; he did not, however, improve, and he came to the hospital on account of abdominal pain.

On admission the abdomen was uniformly distended; respiration almost entirely thoracic. There was a feeling of resistance below and to the right of the umbilicus, with marked tenderness on pressure; no tenderness elsewhere. Abdomen resonant all over; no evidence of fluid. Liver dulness commenced at the lower border of the 5th rib in the nipple line, but at the 7th rib the note

became resonant again. The edge of the spleen could just be felt. Thoracic viscera normal.

His temperature remained constantly above normal, varying from 100° to 102° . The abdominal signs showed little change; the greatest resistance to pressure was obtained in the right lumbar region. On February 9th his blood was examined for Widal's serum test with inconclusive result. On February 10th the edge of the liver could be felt 2 inches below the costal margin, and its surface was smooth and tender on palpation. The signs pointing to a collection of pus either below or above the liver, an incision was made on February 12th through the right rectus muscle below the costal margin; foul pus was evacuated from below the liver. Not much relief followed the operation, his temperature did not fall, his tongue remained coated, and liver dullness still commenced at the 5th rib. Accordingly, on February 18th, the incision was enlarged in an upward direction and the upper surface of the liver explored; no pus was found, but merely recent adhesions between the liver and the diaphragm. Again no relief ensued, and on February 22nd he had a temperature of 105.2° with a rigor; another rigor occurred on the 23rd, and the wound was explored again, but nothing found to account for his symptoms. His temperature still remained high, and early in March assumed an intermittent type with sweating and chills—on one occasion reaching 106.4° . There being some dullness at the base of the right chest, a piece of the 8th rib was resected on March 18th, the diaphragm divided, and some pus evacuated from the upper surface of the liver. Death occurred nine days later.

Post-mortem.—The tip of the vermiform appendix was adherent to the cæcum and was perforated. Peritoneal adhesions were present along the outer side of the ascending colon. In the region of the hepatic flexure was the abscess cavity which had been opened during life; the cavity was bounded by the hepatic area of the kidney, the hepatic flexure of the colon, and by the 10th, 11th, and 12th ribs in the mid-axillary line. The pus was shut off from the mid line by adhesions about the portal vein and the duodenum, whilst towards the right it extended a little between the outer surface of the liver and the ribs. A racemose abscess of some standing was present in the right lobe of the liver, and a branch of the portal vein communicated directly with it; the portal trunk, however, contained healthy blood. The right lung was collapsed, and its anterior surface was coated with a thick layer of plastic exudation.

IV. DISEASES OF THE LIVER.

1. CIRRHOSIS OF LIVER IN A CHILD; ENLARGED SPLEEN; PERITONITIS; DEATH.

N. P—, female, æt. 13. Admitted July 6th, died July 12th, 1898.

Family history: father healthy; mother died in 1898 of enteric fever. Child had measles and whooping-cough in 1888. In January, 1889, she was said to have

had "low fever." A month later she was seized suddenly with vomiting and abdominal pain, followed in three days by jaundice; she was admitted to St. Thomas's Hospital under Dr. Bristowe on February 26th, and discharged May 19th, 1889. Her skin was jaundiced; the superficial trunk veins were enlarged; abdomen distended and tender. Liver dulness commenced at the level of the 6th rib, and its edge reached nearly to the umbilicus; its surface was hard and smooth. Spleen not enlarged. The abdominal distension increased, and a drachm of blood-stained fluid was drawn off by an exploring needle; there was an evening rise of temperature, varying from 101° to 103° F. By the time she left the hospital the jaundice had disappeared. She was treated with iodide and mercury. Diagnosis—obstructive jaundice. She again came under treatment in 1896 as an out-patient for "enlarged liver." She was admitted as an in-patient for the second time on October 21st, and discharged November 8th, 1897. She had then been ailing for three weeks. Four days before admission she had an attack of vomiting and abdominal pain. No history of alcohol could be elicited.

On readmission she was jaundiced; the superficial veins were still enlarged; the liver edge could be felt 2 inches below the costal margin; its surface was granular and hard. The spleen descended as low as the level of the umbilicus; there was a slight shifting dulness in the flanks. Thoracic viscera normal. Her temperature remained normal, bowels regular. She was treated with iodide. Diagnosis—cirrhosis of liver. Her health after leaving the hospital was poor; she was not infrequently troubled with vomiting, and on four occasions vomited blood; she also on two or three occasions passed blood *per rectum*. Occasional pain in the right side of the abdomen. Three days before admission she felt ill, with sore throat and dyspnoea; diarrhoea occurred; she vomited, the vomit containing much blood, and blood was again passed *per rectum*. When admitted on July 6th, 1898, she was a small child for her age, looking very ill, with blanched face. Hepatic dulness commenced at the level of the 5th rib in the nipple line, and its edge could be felt 2 inches below the costal margin. The spleen was greatly enlarged, and reached half an inch below the umbilicus. The abdomen was distended, but no shifting dulness could be obtained. The superficial veins were enlarged, and the direction of the blood current was upwards. There was an apical systolic murmur. A few small petechiæ were scattered over the trunk and limbs. During the six days she lived she vomited frequently, including considerable quantities of blood—15 ounces on one occasion. The bowels were loose, and the stools frequently contained blood.

Post-mortem.—In the upper part of the belly there was evidence of a very chronic peritonitis; the great omentum was puckered up and adherent to the liver; the gastro-hepatic omentum was converted into a dense mass of fibrous tissue, in the midst of which were found the gall-bladder, dilated bile-duct, and hepatic vessels. In addition recent peritonitis was present, the peritoneal cavity containing $1\frac{1}{2}$ pints of turbid yellow fluid with flakes of lymph; in the pouch of Douglas the exudation had all the appearance of pus. The liver was very firm and irregular in outline, and was extensively cirrhotic, the greater part of the right lobe consisting of glistening fibrous tissue. The islets of liver tissue were of a bright canary yellow colour. Microscopically the liver-cells showed advanced fatty degeneration. No new formation of bile-ducts. Weight of liver, 34 ounces.

The spleen was much enlarged, weighing 21 ounces. A bunch of dilated veins was present at the lower end of the œsophagus.

2. CHOLELITHIASIS; SUPPURATIVE CHOLANGITIS; TUBERCULOSIS; DEATH.

A. R—, female, æt. 43. Admitted August 3rd, died October 18th, 1898. Family history unimportant. Previous history good except for "bilious attacks." Had borne 8 children.

On April 8th she was seized with severe abdominal pain, accompanied by headache, vomiting, and diarrhœa. These symptoms persisted for a fortnight, at the end of which time she was delivered of a stillborn 8-month fœtus. The abdominal pain continued, and she began to be jaundiced. In June the pains were better, but her abdomen began to swell, and she was tapped in that month, and again shortly before admission. The jaundice diminished greatly. There had been considerable loss of weight.

On admission she was an emaciated woman, with conjunctivæ slightly tinged yellow. A hard tumour could be felt in the left hypochondriac and lumbar regions, apparently coming from underneath the costal margin. The liver was enlarged to within an inch of the umbilicus; its surface was very hard, and several hard bosses could be felt. There were signs of fluid in the left pleura.

Pleural and pericardial friction were frequently audible, and on August 26th 10 ounces of blood-stained fluid were aspirated from the left chest. Her abdomen gradually filled, and on September 7th 16 pints, and on October 5th 4 pints were removed by tapping. The urine usually contained a trace of albumen, and bile pigment was constantly present. There was fever of intermittent type, frequently reaching 103° F. She vomited frequently, complained occasionally of abdominal pain, grew gradually weaker, and died on October 18th. During the last month or so her skin had a yellow tinge, but the jaundice was at no time marked.

Post-mortem.—The peritoneal cavity contained about 6 pints of turbid fluid; the coils of intestine were stuck together by lymph, and there were countless numbers of miliary tubercles. The tumour felt during life was found to be an indurated mass, formed of matted great omentum and transverse mesocolon. The common bile-duct was greatly dilated, and contained several gall-stones the size of cherries. The gall-bladder was of small size, and contained 2 gall-stones. The bile-ducts within the liver were distended with bile-stained purulent fluid, and in some places the surrounding liver substance was on the point of abscess formation. The liver was slightly enlarged; its peritoneum was thickened, and showed numerous depressions, probably gummatous cicatrices. The portal vein was healthy. Both pleural cavities showed extensive adhesions, and there was a small cavity at the left apex.

3. TWO CASES OF ACUTE ATROPHY OF LIVER.

1. W. H. J. P—, male, æt. 28. Admitted December 28th, 1897, died January 2nd, 1898.

Illness commenced 2 days before admission with general malaise, fatigue, and

drowsiness. On the next day he was feverish, vomited, and felt very ill. Bowels were freely opened by a purge.

On admission there was slight but decided jaundice. He complained of epigastric pain and tenderness; was still vomiting; he was drowsy; the tongue heavily furred. Temp. 104°, pulse 79. Urine of high specific gravity, dark; it contained bile and a trace of albumen.

On the following day he felt better; the vomiting was not quite so troublesome. The liver was enlarged, dulness commencing just below the 4th rib, and extending 2 inches below the costal margin. Next day (December 30th) he was still restless and inclined to yawn; the urine still contained a trace of albumen and bile salts. On December 31st the jaundice was deeper, epigastric tenderness still present; no vomiting. He was more restless, and his memory was failing. Temp. 97°.

On January 1st he was comatose. The area of liver dulness had diminished. The urine was examined for leucin and tyrosin with a negative result. Respiration assumed the Cheyne-Stokes rhythm. The temperature rose and reached 108° at death.

Examination of the urine showed the presence of tyrosin, but leucin could not be detected.

Post-mortem.—Decomposition had been very rapid; the retro-peritoneal tissues were full of gas, and small gas bubbles were present beneath the pleura and in the omentum. Subserous hæmorrhages were present in large numbers. The liver had retreated beneath the ribs; its capsule was smooth and thrown into small wrinkles. The liver was reddish-brown in colour; in texture it was extremely friable. On section the right lobe was in the main reddish, but the left possessed a dull yellow colour. The liver weighed 45 ounces. The spleen was enlarged. The kidneys were enlarged, weighing 14½ ounces together; they were soft, the cortices were widened, and contained yellow streaks. The pancreas was soft and pasty.

2. A. M—, female, æt. 32. Admitted February 26th, died March 16th, 1898. Mother died of asthma; father and five brothers alive and well. Had six children; two said to have died of thrush. Previous health good, with the exception of slight dyspepsia at times. Moderate as regards alcohol. Never been jaundiced before.

Her illness commenced 12 days before admission with headache, pain in abdomen, vomiting, and "cold shivers." These symptoms, at first slight, gradually increased in severity, and were most marked when in bed at night. The headache was frontal, and she perspired a good deal. She complained also of pain and weakness in joints and legs. Jaundice was first noticed 9 days before admission. Bowels had been very constipated from the commencement of her illness.

On admission she was well nourished and markedly jaundiced. There was nothing abnormal in the thorax other than a few bubbling râles at the right base. The liver dulness commenced above at the level of the 6th rib, and its edge could be felt as low as the umbilical level. It felt hard, and was somewhat tender on palpation. The spleen could just be felt. There was no ascites. Tongue covered with yellow fur. Urine (specific gravity 1020) contained bile and a trace of albumen.

For 12 days there was no change of importance. Constipation was overcome by calomel and Carlsbad salts; vomiting occurred once or twice; the abdominal pain diminished. On March 11th she became incoherent, talked to imaginary people, and was very restless in her actions; she vomited frequently. On the next day the edge of the liver could be felt $4\frac{1}{2}$ inches below the costal margin. From this time onwards she gradually became worse; she was delirious, and at times very violent, being quieted somewhat by hyoscine. The jaundice became more intense, and râles appeared all over the chest. For the first 10 days the temperature did not rise above 99.6° F., for the next 5 days it was subnormal, but just before death it rose to 105.4° .

Both leucin and tyrosin were obtained from the urine. During the last few days the liver distinctly diminished in size.

Post-mortem.—The liver weighed 43 ounces, but was not diminished in size; in fact, it reached to 2 inches below the costal margin. This was due, however, in the main to the fact that the lower part of the right lobe was partially separated from the main part of the organ by a constriction, forming, in fact, a typical “schurleber.” A hemispherical nodule, an inch across, stood out from the margin of the right lobe, in colour a bright yellow. There were several other smaller nodules. The left lobe and the semi-detached portion of the right were of a bright yellow colour; the rest of the organ was dull red. Microscopically the red parts showed extensive round-celled infiltration in the portal vein area; the bright yellow tracts were comparatively healthy. The kidneys were large, but showed signs of early interstitial nephritis. The viscera were carefully tested for phosphorus with a negative result.

V. DISEASES OF THE NERVOUS SYSTEM.

1. BRONCHIECTASIS; CEREBRAL ABSCESS; OPERATION AND RECOVERY; READMISSION AND DEATH.

G. G—, male, æt. 30. Admitted March 1st, discharged June 8th, 1898.

No history of phthisis in family. From boyhood very subject to bronchitis. At about 17 had been treated at St. George's Hospital for bronchitis and pleurisy, and later was an in-patient at Brompton Hospital for the same. A year before admission was seized with some shivering fit, apparently a rigor, and again nine months later.

Five days before admission he noticed a feeling of “pins and needles” in the right hand and forearm; this was followed the next morning by loss of power in the right arm, but he was still able to move his fingers. The weakness extended until he was only able to move his shoulder very slightly. On the day preceding admission there was a definite attack of spasmodic movements affecting the paralysed hand and arm and the leg of the same side. The left side was not involved. This attack was followed by headache.

On admission he was a pale, unhealthy-looking man. The right arm was completely paralysed with the exception of slight movement at the shoulder-joint; the face was unaffected; the right leg was distinctly weaker than the left. No affection of sensation; left knee-jerk increased. Speech normal; no optic neuritis. Marked clubbing of fingers. Lungs: resonant anteriorly, numerous rhonchi in both, and on the left side crepitations; posteriorly impaired resonance over left lower lobe, with coarse friction sounds. On March 2nd a typical Jacksonian attack occurred, commencing in right hand with clonic spasms, spreading to the arm, face, and leg of the same side; consciousness was retained throughout the fit, which lasted about a quarter of an hour. A similar but more severe attack, lasting two hours, occurred the following day; it was attended with severe pain. This second fit left the right leg considerably weaker, and by March 7th it was almost completely paralysed. Weakness of right side of face first noticed on March 5th. Moderate amount of purulent sputum; tubercle bacilli not found. On March 8th speech was thick and hesitating, and it was decided to explore the left Rolandic area. A quantity of foul pus was evacuated without difficulty. After the operation right hemi-anæsthesia and motor aphasia developed, and on March 10th the wound was opened up and more pus evacuated. His condition improved for a few days and the aphasia steadily improved, but on March 17th it again became absolute, the hemiplegia and hemi-anæsthesia showed no change, and he was very lethargic; he again began to improve a week later, the aphasia gradually lessened, sensation and power returned, first in the leg and then in the arm. On April 4th he brought up a large quantity of foul pus from the lungs. The improvement was steady, and by the time he left the hospital his aphasia had almost entirely disappeared and he was able to walk; there was fair power in all the muscles of his right leg and in the arm, the movements of the hand being, however, still rather deficient.

After leaving the hospital he continued to improve, though his cough persisted. During the week preceding readmission he complained of headache, vomited for 3 days, and had two fits, each commencing in the right leg.

Readmitted November 30th, died December 4th, 1898.

There was a marked bulging through the old trephine hole, and the swelling was very tender. Right facial paralysis; right arm much weaker than the left, and both were decidedly wasted as compared with the left side. Condition of sensation could not be ascertained on account of the patient's mental condition. Ankle-clonus present in the right leg. Chest: the left side was much smaller than the right; rhonchi were present over both lungs, and especially the left; there was impaired resonance at the left base with numerous crepitations; breath very offensive. On the day following admission the old wound was opened up and a large quantity of foul pus evacuated from an abscess of frontal lobe, &c. Death occurred four days after the operation.

Post-mortem.—The trephine hole was situated over the lower Rolandic area; an abscess the size of a walnut containing thick pus was found above the cavity that had been drained. Leading from the main abscess cavity a sinus communicated with the lateral ventricle, which contained blood-stained pus. The right lateral ventricle also contained pus, but the third and fourth were free. Lymph and pus were also present at the base of the brain, especially in the region of the optic chiasma. All the sinuses were healthy.

The left pleural cavity was completely obliterated; the lower lobe showed a bronchiectatic condition, there being about 20 cavities, all about the size of marbles.

2. DISSEMINATED SCLEROSIS ; DEATH.

H. H—, æt. 23. Iron-moulder. Admitted February 11th, died March 29th, 1898.

Family history good. As a boy had many attacks of inflammation of the bowels. At the age of 12 had scarlet fever and diphtheria together. His left eye was destroyed by an injury from molten iron. Had gonorrhœa four years before admission; doubtful history of syphilis two years later. Temperate as regards alcohol. He dated his illness from an accident in April, 1897, when in raising a heavy weight he fell backwards, striking the middle of his back against a wall; a few days after he noticed numbness in his right leg, but was able to walk well; early in June a similar numbness affected the left leg, and about a week later he noticed that his left leg gave way in walking. In the middle of June this feeling of numbness attacked the left arm, and the right leg began to improve. He experienced some difficulty in micturition from May onwards. He had lost about 18 pounds in weight, and had been feeling very nervous.

First admitted July 3rd, discharged August 4th, 1897.

He was a pale, thin man. There was partial anæsthesia to all forms of stimulation in the left forearm and hand, and the muscular power was slightly less than that of the right arm. The left leg from the knee downwards showed similar impaired sensation and muscular power. Gait was unsteady and spastic. Romberg's sign present. No inco-ordination in upper extremities. The left leg was distinctly rigid; both knee-jerks were exaggerated, especially the left, and there was ankle-clonus on the left side. Movements of right eye normal. No change of importance occurred during his residence in the hospital; temperature chart normal; bowels were irregular. He was treated with iodide, and by the time he was discharged there was a slight improvement in gait.

After leaving hospital he was able to get about without difficulty. In January, 1898, he was confined to bed for a week with an attack of influenza; after this he experienced very great difficulty in walking; gait became staggering, and his legs tended to cross each other when walking. On February 1st he fell on getting out of bed, striking his head against a fender; following this there was complete inability to walk. In February he also noticed shooting pains in legs and abdomen. Bowels constipated; no vomiting or nausea. Vision had failed slightly in his right eye following the attack of influenza. During the week preceding admission, urine had been drawn off daily by catheter.

On readmission nothing abnormal detected in thorax and abdomen. There was marked muscular weakness in both legs; no wasting. There was also considerable weakness of the right arm. Distinct inco-ordination of movement in the upper extremities. Sensation was not abolished anywhere, but was impaired slightly in the right leg. Knee-jerks were increased and equal on both sides. Ankle-clonus present. Weakness, but not complete paralysis, of the right side of the face. Complete paralysis of external and internal recti of the right eye; upward and downward rotation good, with nystagmus on upward move-

ment ; pupils reacted to both light and accommodation. The ocular fundi showed evidence of recent papillitis.

His condition gradually grew worse ; he was put on a water-bed on account of tendency to bed sores. Occasional incontinence of urine ; cystitis developed. He not infrequently complained of pains in arms and legs. The muscular power of the lower limbs steadily diminished, and he was soon quite unable to move them at all ; the arms also became progressively weaker. The right knee-jerk diminished in briskness and then disappeared. The movements of the right eye improved considerably, so that in March he was for a time able to move it in all directions ; the right facial paralysis also showed some improvement. His memory failed ; he lost flesh rapidly, vomited occasionally, both knee-jerks were lost, and death occurred on March 29th.

Post-mortem.—The body was extremely wasted. There was well-marked cystitis, both ureters were injected and the pelves of both kidneys inflamed, the left containing much muco-pus. Brain : a considerable excess of serous fluid was evident on opening the dura mater. Numerous areas of sclerosis were found scattered throughout the brain and cord ; they were present in the hemispheres, most being subcortical, in the cerebellum, pons and cord. In appearance they were darker in colour than the normal tissue, and could be better felt than seen. They were mostly quite small ; the largest was about the size of a marble.

SURGICAL REPORT.

1898.

By E. OWEN THURSTON, M.B., B.S.LOND., F.R.C.S.ENG.

General Surgical Statement.

Number of surgical beds—266 (this includes all beds in children's ward).

„ of surgical patients in hospital, January 1st, 1898				{	Males	129
				{	Females	81
„ „ „ „ December 31st, 1898				{	Males	117
				{	Females	88
„ „ „ treated to a termination in 1898				.	.	3769

	Total.		Males.		Females.
Discharged cured	2637	...	1695	...	942
„ relieved	725	...	372	...	353
„ unrelieved	189	...	107	...	82
Died	218	...	147	...	71
Totals	3769		2321		1448

Average number of days in hospital—21·47.

Death rate=5·78 per cent.

(Ophthalmic cases are not included in the above statement.)

TABLE I.—Abstract, showing Diseases, &c., in Classes,

DISEASE.	Total.	Sex.		Age.										Duration before admission.								Chronic.	Not stated.
		M.	F.	5	10	20	30	40	50	60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12						
GENERAL DISEASES.																							
Erysipelas	47	22	25	12	3	4	6	12	7	3	...	29	8	...	...	...	...	...	10
Tetanus	2	2	...	1	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...
Anthrax infection	1	...	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Syphilis, congenital	5	2	3	3	...	2	...	...	...	...	...	...	1	1	...	1	...	2	...
„ secondary	12	4	8	...	...	2	10	...	...	...	...	...	1	3	4	1	1	1	1
„ tertiary	17	11	6	...	...	...	5	6	2	3	1	...	3	1	4	4	2	1	2	
LOCAL DISEASES.																							
Carcinoma—																							
Spheroidal—																							
Breast	40	...	40	...	...	...	6	13	16	5	...	...	1	...	3	21	15	...	...		
„ recurrent in scar	12	...	12	...	...	...	4	3	3	2	...	1	2	3	2	1	...	3	...	
„ „ in glands	12	...	12	...	...	...	1	3	5	3	...	...	1	5	5	...	...	1	...
Antrum	2	1	1	...	...	...	...	...	1	1	...	...	...	...	1	1	...	...	...	
„ recurrent	1	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Groin	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...		
Face	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...		
Hand	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...		
Pancreas	1	1	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Columnar—																							
Breast	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	
Stomach	5	2	3	...	...	...	1	1	2	1	...	...	...	1	2	1	...	...	...	
Pylorus	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...		
Cæcum	3	3	...	...	...	...	1	2	...	...	...	...	1	2	...	...	...	...	...
Ascending colon	1	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Descending colon	1	...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Sigmoid flexure	3	3	...	...	...	...	...	...	1	1	1	...	...	...	...	2	1	...	...		
Rectum	26	21	5	...	...	...	1	2	9	6	8	...	...	3	1	10	5	6	1
„ recurrent	3	2	1	...	...	...	1	...	1	1	...	...	...	1	...	...	1	1	1
Liver	4	2	2	...	...	...	1	...	1	2	...	...	...	2	1	...	1	...	...		
Squamous—																							
Cheek	4	2	2	...	...	...	...	...	1	1	2	...	...	...	...	3	1	...	...		
Lip	5	5	...	...	...	...	...	...	1	...	4	...	...	...	1	2	2	...	...		
Tongue	24	23	1	...	...	...	...	...	7	9	8	...	...	5	11	...	7	...	1
„ recurrent	2	2	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...
Glands of neck	10	9	1	...	...	...	1	2	3	4	...	2	3	1	2	...	...	...	2
Alveolar border	6	5	1	...	...	...	...	2	1	2	1	...	...	2	3	...	...	...	1
Floor of mouth	5	5	...	...	...	...	...	...	3	1	1	...	...	3	2	...	...	...	...
Tonsil	2	2	...	...	...	...	...	...	1	1	...	...	...	...	2	...	...	...	...
Pharynx	2	1	1	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	...		

according to Authorised Nomenclature.

Duration of residence.								Result.				Remarks.
Dys. 5-13	Wks 3-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
33	3	3	...	...	...	...	...	42	...	...	5	Tetanus neonatorum 1.
...	...	1	...	...	...	...	...	1	...	...	1	
1	...	...	...	...	...	...	...	1	...	...	...
2	2	1	...	...	...	...	...	1	2	...	2	Fatal case: necrosis of skull, phthisis.
5	3	3	...	...	...	...	...	12	...	...	...
4	10	2	...	...	...	...	...	10	6	...	1	
2	27	9	1	...	...	...	...	32	3	4	1	Paget's disease of nipple 1; colloid 1; encephaloid 1.
5	3	1	2	...	...	...	...	12	...	...	...	Supra-clavicular 4.
3	5	4	...	...	...	...	...	1	11	...	...
1	...	1	...	...	...	...	...	1	1	...	...	Readmission.
...	1	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	1	...	...	...	Arose in cutaneous glands.
...	1	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	...	...	...	1	Erysipelas. <i>Vide</i> Special Table II.
1	...	...	...	...	...	...	...	...	...	...	1	
...	...	1	...	...	...	...	...	1	...	...	...	Readmission 1.
1	2	...	...	...	...	...	...	2	1	2	...	
...	1	...	...	...	...	...	...	1	...	...	...	Obstruction 1.
...	...	1	1	1	...	...	...	1	1	1	1	
...	1	...	...	...	...	...	...	1	...	...	...	Obstruction 2.
...	2	1	...	...	...	...	...	2	1	...	...
3	9	9	3	1	1	...	...	6	8	7	5	Transferred to Medical 1.
2	...	1	...	...	...	...	...	2	...	...	1	
1	...	2	...	...	...	...	...	...	4	...	...
...	1	2	...	...	...	...	...	2	1	1	...	Internal surface 3, external 1; scar epithelioma 1.
1	4	...	...	...	...	...	...	5	...	...	...	Lower in all. Excision in all.
5	14	3	...	...	...	...	...	11	6	7	...	Erysipelas 1. <i>Vide</i> Special Table II.
...	...	2	...	...	...	...	...	2	...	...	...
7	3	...	...	...	...	...	...	2	4	4	...	Secondary to tongue 8, to lip 2. Readmissions 5.
1	2	1	1	...	...	...	...	2	3	1	...	Recurrent 3; upper jaw 3.
1	4	...	...	...	...	...	...	1	2	1	1	Recurrent 1. Fatal case: pyæmia. See Special Table III.
2	...	...	...	...	...	...	...	...	1	1	...	Glands involved 2.
1	...	1	...	...	...	...	...	1	1	...	...	Larynx involved 1. Gastrostomy 1.

TABLE I.—*Abstract, showing Diseases, &c., in Classes,*

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	5	10	20	30	40	50	60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not stated.
LOCAL DISEASES—continued.																			
Carcinoma—continued.																			
Squamous—																			
Palate	3	3	...	...	...	...	...	...	1	1	1	...	...	...	...	2	...	1	...
Larynx	4	3	1	...	...	...	...	1	1	1	1	...	...	...	...	...	3	...	1
Esophagus	12	12	...	...	...	...	...	...	5	3	4	...	...	...	2	5	5	...	...
Tympanum	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...
Forehead	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...
Nose	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...
Parotid	2	2	...	...	...	...	...	...	...	2	...	...	...	...	...	2	...	...	...
Neck	2	2	...	...	...	...	...	...	...	2	...	...	...	...	1	...	1	...	...
Groin	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...
Hand	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Penis	4	4	...	...	...	...	...	2	...	...	2	...	...	...	...	1	...	3	...
Scrotum	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Cervix uteri	2	...	2	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	1
Perinæum	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...
Bladder	3	3	...	...	...	...	...	...	...	1	2	...	...	1	2	...	...	...	...
Kidney	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
Rodent ulcer	13	7	6	...	...	...	...	2	...	3	8	...	...	...	...	...	...	11	2
„ recurrent	2	...	2	...	...	...	...	...	2	...	...	...	1	...	...	1	...	...	...
Sarcoma—																			
Neck	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Back	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...
Ovary	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Testis	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Thigh	4	1	3	...	...	...	2	...	1	1	...	...	...	...	...	2	...	2	...
Leg	4	4	...	1	...	...	1	1	...	...	1	...	...	...	1	2	1	...	...
„ recurrent	2	...	2	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...
Foot	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...
Toe	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...
Peritoneum	1	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...
Retro-peritoneal	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...
Adrenal	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...
Chest wall	3	3	...	...	...	...	1	...	...	2	...	...	...	...	...	...	3	...	...
Bladder	2	2	...	...	...	...	...	...	...	2	...	...	...	...	1	1	...	...	...
Temporal	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Antrum	4	4	...	...	...	...	1	...	1	...	2	...	...	...	3	...	...	1	...
Inferior maxilla	4	2	2	...	3	...	...	...	...	...	1	...	...	...	2	2	...	...	...
Sternum	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...

according to authorised Nomenclature—continued.

Duration of residence.										Result.				Remarks.
Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12		C.	R.	U.	D.	
...	1	2	...	...	...	...	...	...	2	...	1	...	...	Hard palate 2; glands involved 1.
1	2	1	...	...	...	...	...	...	...	1	1	2	...	Intrinsic 3; extrinsic 1.
...	4	5	2	1	...	...	...	...	...	7	2	3	...	Gastrostomy 8.
...	...	...	1	...	...	...	...	...	...	1	...	...	...	Necrosis of mastoid.
...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	...	...	...	...	1	...	...
...	1	1	...	...	...	...	...	...	...	2	...	...	...	Readmission 1.
1	...	1	...	...	...	...	...	...	...	1	1	...	...	Same case; recurrence in scar.
...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Amputation of forearm.
...	...	2	1	1	...	...	...	...	...	2	2	...	...
...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	1	...	1	...	...	...	...	...	...	1	...	1	...	Secondary peritoneal growths 1. Supra-pubic cystotomy 1.
...	...	...	1	...	...	...	...	...	...	1	...	...	...	Pregnancy.
...	...	2	...	1	...	...	...	...	...	2	...	1	...	
...	...	1	...	...	...	...	...	...	...	...	...	1	...	Pyonephrosis.
1	7	4	1	...	...	...	...	...	10	1	2	...	...
...	...	...	1	1	...	...	...	...	...	2	...	...	...	Same case.
...	1	...	...	...	...	...	...	...	1	...	...	...	...	Spindle-celled.
...	...	...	1	...	...	...	...	...	1	...	...	...	...	Spindle-celled.
...	1	...	...	...	...	...	...	...	...	...	...	1	...	Nature undetermined.
...	1	...	...	...	...	...	...	...	...	...	...	1	...	Round-celled.
...	...	1	1	2	...	...	...	...	2	1	1	...	...	Round-celled 2, spindle-celled 2.
1	1	1	...	1	...	...	...	...	3	...	1	...	...	Melanotic 1, spindle-celled 2, giant-celled 1.
...	...	1	1	...	...	...	...	...	1	1	...	...	...	Spindle-celled; same case.
...	...	1	...	...	...	...	...	...	...	...	...	1	...	Melanotic, dissemination.
...	...	...	1	...	...	...	...	...	1	...	...	...	...	Alveolar; arising from transformation of chondroma.
...	...	1	...	...	...	...	...	...	...	...	...	1	...	
...	...	1	...	...	...	...	...	...	...	...	...	1	...	
...	1	...	...	...	...	...	...	...	...	...	...	1	...	Dissemination; spindle-celled.
...	...	3	...	...	...	...	...	...	...	...	2	1	...	Readmission 1.
...	...	2	...	...	...	...	...	...	...	...	...	2	...	Mixed-celled 1.
...	1	...	...	...	...	...	...	...	...	...	...	1	...	Small round-celled.
...	1	2	...	1	...	...	...	...	1	1	1	1	...	Round-celled 3. Readmission 1. Myeloid 1. Erysipelas 1, see Special Table II.
...	1	1	2	...	...	...	...	...	2	1	...	1	...	Myeloid 2, alveolar 1, periosteal 2. Fatal case: dissemination.
...	...	...	1	...	...	...	...	...	...	1	...	...	...	Periosteal. Nature undetermined.

TABLE I.—*Abstract, showing Diseases, &c., in Classes,*

DISEASE.	Total.	Sex.		Age.								Duration before admission.								Chronic.	Not stated.
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12				
LOCAL DISEASES—continued.																					
Sarcoma—continued.																					
Humerus	3	3	...	...	...	1	1	1	...	...	...	...	...	...	1	1	...	...	...
„ recurrent	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Ilium	2	1	1	...	...	...	1	1	...	...	...	...	1	...	...	1	...	...	...
Femur	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Tibia	2	...	2	...	...	...	1	...	1	...	...	...	...	...	...	1	1	...	...
„ recurrent	2	1	1	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...	...
Fibula	1	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Simple tumours—																					
Lipoma	20	8	12	...	...	...	3	5	6	4	2	...	...	1	1	1	2	15	...
Polypi	12	3	9	...	...	2	3	1	3	1	2	...	1	...	...	3	2	6	...
Papilloma	10	8	2	3	...	...	1	...	...	3	3	...	...	...	2	...	1	7	...
Nævus	13	4	9	8	2	2	...	1	...	...	...	...	...	...	6	2	5	...	...
Fibroma	12	2	10	...	...	4	1	3	2	1	1	...	...	...	2	7	2	1	...
Neuroma	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Exostosis	17	6	11	...	2	9	3	2	...	1	...	...	...	...	5	3	9	...	...
Chondroma	2	2	...	...	...	1	...	...	...	1	...	...	...	...	...	...	2	...	...
Fibro-adenoma	10	...	10	...	...	1	5	4	...	...	...	...	...	1	...	4	...	4	1
Cystic fibro-adenoma	2	2	...	1	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...
Adenoids	36	18	18	4	9	21	2	...	...	...	...	...	...	3	2	3	18	10	...
Parotid tumour	5	3	2	...	...	...	1	1	1	2	...	...	...	...	...	...	5	...	...
Cystic hygroma	5	...	5	3	1	1	...	...	...	...	...	...	...	...	2	...	3	...	...
Pigmented mole	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Granuloma	2	2	...	...	...	1	1	...	...	...	...	...	1	...	1	...	...	...	...
Fibro-myoma	4	...	4	...	...	...	...	2	1	1	...	...	...	...	2	...	2	...	...
Cysts—																					
Dermoid	4	2	2	...	1	1	2	...	...	...	...	...	...	1	...	...	1	2	...
Thyro-lingual	1	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Branchial	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
Ranula	3	1	2	...	...	2	1	...	...	...	...	...	...	1	2	...	...	...	...
Of neck	1	...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Appendicular	1	...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Of jaw	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
Sebaceous	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
Hydatid	2	2	...	...	1	...	...	1	...	...	...	...	...	...	...	1	1	...	...
Of Bartholin	1	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...
Ovarian	7	...	7	...	...	2	2	...	...	3	...	...	...	...	1	3	2	1	...
„ suppurating	1	...	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...
Broad ligament	4	...	4	...	...	...	1	1	2	...	...	...	...	...	2	...	...	...	2

according to authorised Nomenclature—continued.

Duration of residence.										Result.				Remarks.
Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12		C.	R.	U.	D.	
...	1	1	...	1	...	...	...	...	...	2	1	...	...	Central 1, calcifying 1, mixed-celled 1.
...	...	...	1	...	...	...	...	...	...	1	...	...	...	Calcifying sarcoma; readmission.
...	...	1	1	...	...	...	...	...	...	...	2	...	...	Nature undetermined.
...	...	...	...	1	...	...	...	...	...	1	...	...	...	Central; small round-celled.
...	...	1	...	1	...	...	...	...	...	2	...	...	...	Round-celled and periosteal 1, myxo-fibro-sarcoma 1.
...	...	1	...	1	...	...	...	...	...	2	...	...	...	Spindle-celled 1, cavernous sarcoma 1.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Periosteal; osteoid sarcoma.
1	12	5	2	...	...	...	...	...	...	18	...	2	...	Retro-peritoneal 1.
1	8	3	...	...	...	...	...	...	...	10	1	1	...	Nasal in all. Excision in 11.
1	1	2	6	...	...	...	...	...	...	9	...	1	...	Tongue 2, larynx 2, bladder 3, scalp 2, foot 1.
...	3	7	2	1	...	...	...	...	...	8	4	1	...	Intra-muscular 1.
...	6	3	1	...	...	...	...	...	...	10	...	2	...	Upper jaw 2, lower jaw 4, labium 2, keloid 2.
...	...	1	...	...	...	...	...	...	...	...	1	...	...	"At own request" 1.
1	4	10	2	...	...	...	...	...	...	15	2	...	...	Subungual 4, femur 3, tibia 3, fibula 2, scapula 1, radius 1, nose 1, frontal 1, auditory meatus 1.
...	...	2	...	...	...	...	...	...	...	2	...	...	...	Chondro-myxoma of toe 1, osteochondroma of tibia 1.
1	7	2	...	...	...	...	...	...	...	9	...	1	...	Breast 10; cystic 3.
...	...	2	...	...	...	...	...	...	...	2	...	...	...	Testicle 2.
13	21	2	...	...	...	...	...	...	...	35	...	1	...	Tonsils 10. Fatal case: septicæmia.
...	3	2	...	...	...	...	...	...	...	5	...	...	...	...
1	...	3	1	...	...	...	...	...	...	1	1	2	1	Fatal case: congenital syphilis.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Cheek.
1	...	1	...	...	...	...	...	...	...	2	...	...	...	Multiple of face 1, scalp 1.
...	3	1	...	...	...	...	...	...	...	...	1	2	1	Uterus 5; multiple 3.
...	4	...	...	...	...	...	...	...	...	4	...	...	...	Sublingual 2, ear 1, implantation cyst 1.
...	1	...	...	...	...	...	...	...	...	1	...	...	...	Suppurating.
...	1	...	...	...	...	...	...	...	...	1	...	...	...	Readmission 1.
1	2	...	...	...	...	...	...	...	...	2	1	...	...	? Nature.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...	...	Periosteal.
...	1	...	...	...	...	...	...	...	...	1	...	...	...	Neck.
...	1	...	...	2	...	...	...	...	...	2	...	...	...	Liver 1, liver and lung 1.
...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
...	1	3	2	1	...	...	...	...	...	4	1	...	2	Twisted pedicle 1, appendicitis 1.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Double.
...	...	2	1	1	...	...	...	...	...	3	...	1	...	Ovarian cyst 1, fibro-sarcoma of wall 1.

TABLE I.—Abstract, showing Diseases, &c., in Classes

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not stated.
LOCAL DISEASES—continued.																			
Tumours, undetermined—																			
Pulsating proptosis	1	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...
Of neck	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Abdomen	2	...	2	...	...	...	...	...	...	1	1	...	...	...	...	1	...	1	...
Pelvis	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
Liver	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
DIGESTIVE SYSTEM.																			
Parotitis	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Cancerum oris	2	...	2	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...
Stomatitis	2	2	...	1	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...
Glossitis	1	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
„ chronic superficial	2	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...
Tonsillitis	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Pharyngitis	1	1	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...
Stricture of œsophagus	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...
„ of pylorus	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...
Foreign body in pharynx	3	3	...	1	...	1	...	1	...	...	...	3	...	...	...	...	...	...	...
„ in œsophagus	2	2	...	1	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...
Hernia—																			
Inguinal, reducible	145	130	15	12	10	35	47	17	16	5	3	2	8	11	6	20	11	84	3
„ irreducible	15	15	...	...	...	...	5	7	1	...	2	...	...	...	...	4	...	10	1
„ strangulated	26	25	1	6	1	1	5	1	1	7	4	25	1	...	...	...	...	...	...
Femoral, reducible	6	1	5	...	...	...	3	2	1	...	...	...	...	...	...	...	2	4	...
„ irreducible	7	1	6	...	...	...	2	2	...	2	1	...	...	...	...	...	3	...	4
„ strangulated	22	4	18	...	...	...	2	3	7	5	5	21	1	...	...	...	...	...	...
Umbilical, reducible	2	1	1	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...	1
„ irreducible	8	1	7	...	...	...	...	1	5	1	1	...	...	...	...	1	1	6	...
„ strangulated	4	1	3	...	...	...	...	...	2	2	...	4	...	...	...	...	...	...	...
Ventral, reducible	8	2	6	...	...	...	4	2	2	...	...	...	...	...	2	...	1	4	1
„ irreducible	2	...	2	...	...	...	...	1	1	...	...	...	...	...	1	...	...	1	...
„ strangulated	2	1	1	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...
Appendicitis, acute	9	7	2	...	1	6	2	...	...	...	...	1	6	2	...	...	...	...	...
„ chronic	47	33	14	...	...	12	19	9	7	...	...	...	6	19	10	9	1	1	1
Intussusception	2	2	...	2	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...
Perforated gastric ulcer	1	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Perforated duodenal ulcer	1	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
Dilatation of stomach	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...
Enteritis	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Enteroptosis	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Matting of small gut	3	...	3	...	...	1	...	1	...	1	...	1	1	...	...	1	...	...	...
Chronic intestinal obstruction	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
Tuberculous peritonitis	3	2	1	1	1	1	...	...	...	...	...	...	...	...	1	...	1	1	...

according to authorised Nomenclature—continued.

Duration of residence.										Result.				Remarks.
ys.	Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4	5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12						
...	...	...	...	1	...	...	...	...	...	1	...	...	...	Ligature of carotid.
...	1	...	...	...	...	...	...	...	...	...	1	...	...
...	1	...	1	...	...	...	...	...	...	...	2	...	...
...	...	1	...	...	...	...	...	...	...	...	1	...	...	? Malignant. Hydronephrosis.
...	...	1	...	...	...	...	...	...	...	...	...	1	...	
...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	...	1	1	...	...	...	...	...	...	2	...	...	...	Same case with recurrence.
1	...	1	...	...	...	...	...	...	...	1	...	...	1	Ulcerative.
1	...	...	...	...	...	...	...	...	...	...	...	...	1	P.M.—Pleurisy.
...	...	2	...	...	...	...	...	...	...	2	...	...	...	Excision of tongue 1.
...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	...	...	...	1	...	...	...	HCl poisoning.
...	...	...	1	...	...	...	...	...	...	1	...	...	...	Pyloroplasty.
3	...	...	...	...	...	...	...	...	...	2	...	1	...	Pin 1, brooch 1. Fatal case: tooth-plate.
...	...	2	...	...	...	...	...	...	...	1	...	1	...	Halfpenny 1, fish-hook 1.
6	21	96	22	...	...	...	...	...	...	126	10	8	1	Fatal case: hæmorrhage. Double 10.
3	4	6	2	...	...	...	...	...	...	9	3	2	1	Fatal: renal disease.
7	9	7	2	1	...	...	...	...	...	22	...	...	4	
1	...	3	2	...	...	...	...	...	...	4	1	1	...	
...	2	3	2	...	...	...	...	...	...	5	...	1	1	Fatal: pneumonia.
1	9	11	1	...	...	...	...	...	...	20	...	...	2	
...	...	2	...	...	...	...	...	...	...	1	1	...	...
2	1	3	2	...	...	...	...	...	...	5	3	...	...
...	...	3	1	...	...	...	...	...	...	3	1	...	...
1	2	1	4	...	...	...	...	...	...	5	1	2	...	Previous cœliotomy 4.
...	...	...	2	...	...	...	...	...	...	2	...	...	...	Previous cœliotomy 2.
1	...	1	...	...	...	...	...	...	...	1	...	...	1	
2	1	4	1	1	...	...	...	...	...	7	...	...	2	
...	4	25	17	1	...	...	...	...	...	43	4	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	2	Multiple 1.
1	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	1	...	...	...	...	...	...	...	...	...	...	...	1	
...	1	...	...	...	...	...	...	...	...	...	1	...	...
...	1	...	...	...	...	...	...	...	...	...	...	...	1	
...	1	...	...	...	...	...	...	...	...	...	1	...	...	See also "Hæmorrhoids."
2	...	1	...	...	...	...	...	...	...	1	...	...	2	Obstruction 2.
...	...	...	1	...	...	...	...	...	...	...	1	...	...
...	1	1	1	...	...	...	...	...	...	...	2	...	1	

TABLE I.—Abstract, showing Diseases, &c., in Classes.

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	5	10	20	30	40	50	60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not stated.
DIGESTIVE SYSTEM — con- tinued.																			
Abdominal pain	4	1	3	1	...	...	...	...	2	...	1	...	2	...	...	2	...	...	...
Hæmorrhage from rectum . .	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
Fistula in ano	44	33	11	...	2	8	18	10	5	1	...	1	4	9	11	5	11	3	...
Hæmorrhoids	78	54	24	...	...	15	23	22	14	4	...	...	6	3	5	10	52	2	...
Stricture of rectum	4	2	2	...	...	1	3	...	...	...	...	...	...	...	...	1	3	...	...
Prolapse of rectum	11	4	7	5	...	3	3	...	...	...	1	...	...	...	...	2	5	3	...
Ulceration of rectum	3	3	...	...	...	1	2	...	...	...	...	...	1	...	1	...	1	...	...
Fissure in ano	9	3	6	...	1	1	4	...	2	1	...	...	1	...	2	3	2	1	...
Pins in rectum	1	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Cholelithiasis	8	1	7	...	2	1	1	1	3	...	...	...	...	...	2	...	4	2	...
Biliary fistula	2	2	...	...	...	...	...	...	...	2	...	1	1	...	...	...	...	...	...
GENITO-URINARY SYSTEM.																			
Stricture	65	65	...	...	...	9	19	21	10	6	1	...	...	3	4	2	50	5	...
Enlarged prostate	20	20	...	...	...	...	1	2	17	2	1	1	2	2	...	9	3	...	...
Gonorrhœal warts	2	1	1	...	1	1	...	...	...	...	...	...	2	...	...	...	...	...	...
Phimosis	17	17	...	5	3	5	3	1	...	...	1	...	1	2	...	12	1	...	...
Gonorrhœa	3	2	1	...	1	2	...	...	...	...	2	...	...	...	...	...	1	...	...
Balanitis	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Sloughing chancres	4	4	...	...	2	2	...	...	...	...	3	...	1	...	...	...	...	...	...
Œdema of scrotum	1	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Gonorrhœal epididymitis . .	3	3	...	...	1	1	1	...	...	1	1	1	...	...	...	...	...	...	...
Suppurating Bartholin's gland	1	...	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Hæmatocele	2	2	...	...	...	...	...	...	2	...	...	...	...	...	...	1	1	...	...
Pouching of urethra	1	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Vesico-vaginal fistula . . .	2	...	2	...	...	1	1	...	...	...	...	...	1	...	...	1	...	...	...
Recto-vesical fistula	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Ulceration of vagina	2	...	2	...	...	2	...	...	...	...	...	...	1	...	...	...	...	2	...
Hæmaturia	2	1	1	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...
Cystitis	3	2	1	...	...	1	1	...	1	...	1	...	2	...	...	...	...	...	...
Tuberculous bladder	8	4	4	...	...	3	2	3	...	...	...	...	...	1	5	2	...	...	...
Cystalgia	3	2	1	...	...	1	1	...	...	...	...	...	...	1	1	...	1	...	...
Moveable kidney	6	...	6	...	...	3	3	...	...	...	...	1	...	...	...	2	3	...	...
Nephralgia	8	4	4	...	1	3	...	2	2	...	...	...	...	...	5	...	3	...	...
Tuberculous kidney	2	...	2	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...
Renal calculus	4	3	1	...	...	1	2	1	...	...	...	...	...	...	2	...	2	...	...
Hydronephrosis	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Pyonephrosis	4	2	2	...	...	2	...	2	...	...	...	...	...	...	...	1	3	...	...
Vesical calculus	13	13	...	1	2	2	1	2	4	1	...	...	1	3	1	3	5	...	...
Urethral calculus	3	3	...	2	2	1	...	...	...	1	...	...	...	1	...	1	...	1	...
Undescended testis	14	14	...	2	9	3	...	...	...	...	1	...	...	1	2	2	8	...	...

ording to authorised Nomenclature—continued.

Duration of residence.								Result.				Remarks.
Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
1	1	2	...	...	...	...	...	4	...	...	...	Cæliotomy 3.
1	...	...	...	...	...	...	...	...	...	1	...	
16	21	4	1	...	...	...	...	42	...	1	1	Fatal case: syncope.
23	46	2	...	...	...	...	...	56	16	6	...	
...	3	...	1	...	...	...	...	4	...	...	...
4	5	1	...	...	...	...	...	6	3	...	2	Excision of 5 inches of rectum 1.
1	...	1	...	...	...	...	...	2	1	...	...	Syphilitic 1.
4	3	...	...	...	...	...	...	9	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...	Transferred with diphtheria.
1	2	4	1	...	...	...	...	4	3	...	1	
...	...	2	...	...	...	...	...	...	1	...	1	Readmission 1.
19	16	21	2	1	...	...	...	49	7	4	5	
10	4	1	3	...	...	...	...	1	15	...	4	
...	1	...	...	...	...	...	...	1	...	1	...	"At own request" 1.
8	3	...	...	...	...	...	...	16	...	1	...	"At own request" 1.
2	1	...	...	...	...	...	...	3	...	...	...	Balanitis 1.
...	...	...	...	...	...	...	...	1	...	...	...
3	...	1	...	...	...	...	...	4	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...
...	2	1	...	...	...	...	...	3	...	...	...
1	...	...	...	...	...	...	...	1	...	...	...
...	1	1	...	...	...	...	...	2	...	...	...
1	...	...	...	...	...	...	...	1	...	...	...	Retention.
...	...	1	...	...	1	...	...	...	2	...	...
...	1	...	...	...	...	...	...	...	1	...	...
...	1	1	...	...	...	...	...	...	2	...	...	? Epithelioma.
...	1	1	...	...	...	...	...	1	1	...	...	? Cause 2.
1	...	2	...	...	...	...	...	3	...	...	...	Previous calculus 2.
2	2	...	1	1	...	1	...	...	7	...	1	
1	2	...	...	...	...	...	...	2	1	...	...
2	...	3	...	...	...	...	...	2	4	...	...	Double 2.
3	4	1	...	...	...	...	...	3	5	...	...
...	...	1	...	...	1	...	...	1	...	...	1	
...	1	2	...	...	...	...	...	3	...	...	1	Pyonephrosis 2, hydronephrosis 1.
...	1	...	...	...	...	...	...	...	1	...	...	Intermittent. See also "Ruptured kidney."
1	1	1	...	...	1	...	...	1	3	...	...
2	5	4	2	...	...	...	...	11	...	...	2	
2	1	...	...	...	...	...	...	3	...	...	...	Perinæal section 1.
2	10	2	...	...	...	...	...	13	1	...	...	Varicose veins 1. <i>Vide</i> "Reducible inguinal hernia."

TABLE I.—*Abstract, showing Diseases, &c., in Classes*

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not
GENITO-URINARY SYSTEM—																			
<i>continued.</i>																			
Tuberculous testis . . .	9	9	...	...	...	1	2	3	3	...	...	1	1	1	...	3	...	3	...
Syphilitic testis . . .	4	4	...	...	...	...	...	3	1	...	...	...	...	...	1	1	...	2	...
Hydrocele of tunica vaginalis	11	11	...	1	...	2	5	...	2	1	...	...	...	...	...	2	1	7	...
„ of cord . . .	9	9	...	2	2	4	...	1	...	...	...	...	...	4	1	2	...	2	...
„ of canal of Nuck . . .	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
„ of hernial sac . . .	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Hypertrophy of breasts . . .	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Mastitis . . .	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Chronic interstitial mastitis	16	...	16	...	...	...	2	4	9	1	...	...	...	...	9	2	1	4	...
Tuberculous mastitis . . .	3	...	3	...	...	...	1	2	...	...	...	...	...	...	...	2	...	1	...
Galactoele . . .	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...
Salpingitis . . .	3	...	3	...	...	...	3	...	...	...	...	...	...	...	...	3	...	...	...
„ tuberculous . . .	2	...	2	...	...	...	1	...	1	...	...	...	...	...	1	1	...	...	...
Pelvic hæmatocele . . .	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...
VASCULAR SYSTEM.																			
Popliteal aneurysm . . .	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...
Radial aneurysm . . .	1	1	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
Varicose veins . . .	99	67	32	...	...	24	53	14	5	2	1	...	...	2	1	8	4	80	...
Varicocele . . .	90	90	...	...	...	50	36	3	1	...	...	2	9	10	5	8	2	40	1
Gangrene—																			
Senile . . .	3	2	1	...	...	...	...	...	1	2	...	1	...	...	...	...	...	1	...
Albuminuric . . .	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...
Glycosuric . . .	2	2	...	...	...	...	...	...	...	2	...	...	...	1	...	1	...	...	...
Embolie . . .	1	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...
Septic . . .	5	4	1	...	...	...	...	...	2	3	...	1	2	...	...	...	...	...	...
Simple traumatic . . .	4	1	3	1	...	1	...	...	2	...	3	1	...	...	...	...	...	...	...
Raynaud's . . .	2	...	2	...	...	2	...	...	...	...	...	...	...	...	2	...	...	...	...
Phlebitis . . .	9	...	9	...	...	1	4	2	2	...	...	2	3	2	...	...	...	...	...
Hæmorrhage from tooth-socket	1	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...
Hæmorrhage after excision of tongue	1	1	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...
LYMPHATIC SYSTEM.																			
Simple adenitis . . .	16	9	7	1	...	2	10	1	2	...	...	2	3	5	1	2	1	...	...
Tuberculous adenitis . . .	110	40	70	3	17	29	39	13	6	1	2	1	2	6	20	25	20	33	...
Lymphangitis . . .	2	2	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...

according to authorised Nomenclature—continued.

Duration of residence.								Result.				Remarks.
Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
1	7	1	...	...	...	...	...	5	4	...	...	Caries of spine 1; readmission 1.
1	3	...	...	...	...	...	...	4	...	...	...	Castration 1.
5	4	1	...	...	...	...	...	10	...	1	...	"At own request" 1.
6	3	...	...	...	...	...	...	8	1	...	...	Suppurating 1.
1	...	...	...	...	...	...	...	...	...	1	...	"At own request."
...	1	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	1	...	...	...	Amputation.
...	1	...	...	...	...	...	...	...	...	1	...	Transferred with diphtheria.
7	7	1	...	...	...	...	...	15	1	...	...	With cysts 7.
...	2	1	...	...	...	...	...	3	...	...	...
...	1	...	...	...	...	...	...	1	...	...	...
2	1	...	...	...	...	...	...	...	2	1	...	Readmission 1.
...	1	...	1	...	...	...	...	...	1	...	1	Cœliotomy 1.
...	...	1	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	...	1	...	...	...
23	65	7	...	...	...	...	...	90	3	6	...	Traumatic; excision.
...	...	...	...	...	...	...	...	...	...	...	...	"At own request" 1. Ulcer 10, rupture 3, re-
...	...	...	...	...	...	...	...	...	...	...	...	current 4. Candidate for services 10. Vari-
31	51	6	...	...	...	...	...	84	...	6	...	cocoele 4. Lower extremity in all.
...	...	...	...	...	...	...	...	...	...	...	...	Hydrocele 3, hæmorrhoids 1, varicose veins 1.
...	...	...	...	...	...	...	...	...	...	...	...	Candidates for services 48.
...	...	1	2	...	...	...	...	3	...	...	...	Double in 1; previous amputation for gan-
...	...	1	...	...	...	...	...	1	...	...	...	grene 1.
1	1	...	...	...	...	...	...	2	...	...	...
...	...	1	...	...	...	...	...	1	...	...	...
...	5	...	...	...	...	...	...	2	1	...	2	
1	3	...	...	...	...	...	...	4	...	...	...
1	...	1	...	...	...	...	...	1	1	...	...	Readmission 1.
2	5	1	...	...	...	...	...	9	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	...	1	...	...	...	Ligature of external carotid.
...	
5	8	3	...	...	...	...	...	14	2	...	...	Erysipelas 1. <i>Vide</i> Special Table II.
48	48	4	2	...	...	...	...	73	31	5	1	Erysipelas 1. Fatal case: septicæmia.
2	...	...	...	...	...	...	...	2	...	...	...

TABLE I.—Abstract, showing Diseases, &c., in Classes

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	5	10	20	30	40	50	60	+60	Duration before admission.							
												Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not
THYROID.																			
Goitre, parenchymatous . . .	8	...	8	...	4	...	3	...	1	...	...	...	...	...	2	6	...	...
„ adenoma . . .	4	1	3	...	1	2	...	1	...	...	...	...	...	1	...	3	...	...
„ cyst . . .	4	...	4	...	...	2	2	...	...	...	1	1	...	...	2	...	...	...
OSSEOUS SYSTEM.																			
<i>Acute epiphysitis—</i>																			
Humerus . . .	1	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
<i>Tuberculous epiphysitis—</i>																			
Radius . . .	1	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
<i>Acute infective osteomyelitis—</i>																			
Pelvis . . .	1	...	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Femur . . .	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Tibia . . .	2	2	...	1	1	...	...	...	...	1	1	...	...	...	...	...	...	...
Humerus . . .	1	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
<i>Periostitis—</i>																			
Inferior maxilla . . .	2	2	...	...	1	1	...	...	...	...	...	1	...	...	...	...	...	1
Zygoma . . .	1	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Tibia . . .	2	1	1	...	1	1	...	...	...	...	...	1	1	...	...	...	...	...
<i>Osteitis—</i>																			
Femur . . .	3	2	1	...	...	3	...	...	...	...	1	...	...	...	2	...	...	...
Tibia . . .	6	3	3	...	2	3	...	1	...	...	...	...	...	1	...	5	...	...
Tuberculous disease of costal cartilage . . .	1	...	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Leontiasis ossea . . .	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...
<i>Caries—</i>																			
Calvarium . . .	1	1	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Zygoma . . .	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Inferior maxilla . . .	1	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
Humerus . . .	4	3	1	1	...	1	1	...	1	...	...	1	...	...	...	3	...	...
Carpus . . .	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Metacarpus . . .	2	...	2	...	1	...	...	1	...	...	...	...	...	...	...	1	1	...
Sternum . . .	4	4	...	1	2	...	...	...	1	...	...	...	...	...	1	...	3	...
Rib . . .	8	6	2	1	2	5	...	...	...	...	1	...	...	1	...	...	...	...
Pelvis . . .	12	7	5	...	3	1	8	...	...	...	...	1	1	...	1	2	3	...
Femur . . .	10	4	6	2	2	4	1	1	...	...	...	...	...	...	3	2	4	1
Tibia . . .	3	...	3	...	...	2	1	...	...	...	...	1	...	...	2	...	...	...

ording to authorised Nomenclature—continued.

Duration of residence.								Result.				Remarks.
Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
2	3	2	1	...	...	...	...	3	5	...	...	Previous excision of lobe 1.
...	3	1	...	...	...	...	...	4	...	...	...	Cystic 3.
1	3	...	...	...	...	...	...	2	1	1	...	Readmission 1.
...	1	...	...	...	...	...	...	1	...	...	...	Lower.
1	...	...	...	...	...	...	...	1	...	...	...	Lower.
...	...	1	...	...	...	...	...	...	1	...	...	Double; subacute.
...	...	...	1	...	...	...	...	1	...	...	1	Subacute.
...	1	...	...	...	...	...	...	...	1	...	...	Simple.
1	...	...	...	...	...	...	...	1	...	...	...	Gummatous.
1	1	...	...	...	...	...	...	2	...	...	...	Tuberculous 1, post-typhoid 1.
...	2	1	...	...	...	...	...	1	2	...	...	Tuberculous 3; readmission 1.
1	1	3	1	...	...	...	...	6	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	...	...	1	...	...
...	...	...	...	1	...	...	...	...	1	...	...	Tuberculous.
...	...	1	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	...	...	...	...	1	Pyæmia. See Special Table III.
1	1	2	...	...	...	...	...	1	3	...	...	Scapula. Tuberculous 4.
1	...	...	...	...	...	...	...	...	1	...	...
...	2	...	...	...	...	...	...	1	1	...	...
...	3	1	...	...	...	...	...	...	4	...	...	Readmission 1.
1	4	2	1	...	...	...	...	4	4	...	...	Sacrum 1; readmission 2.
1	3	7	1	...	...	...	...	1	10	...	1	Acetabulum 3, ischium 1, ilium 8.
3	4	2	...	...	1	...	...	3	7	...	...	Readmission 2. Erysipelas 1. <i>Vide</i> Special Table II.
...	1	2	...	...	...	...	...	...	3	...	...	Readmission 1.

TABLE I.—*Abstract, showing Diseases, &c., in Classes*

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not
OSSEOUS SYSTEM—continued.																			
Caries—continued.																			
Tarsus	12	4	8	4	2	1	3	..	1	1	...	...	...	1	5	1	5	...	...
Metatarsus	3	...	3	...	...	1	...	2	...	...	...	...	...	1	...	2	...	...	...
PhalauX	1	...	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Necrosis—																			
Frontal bone	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Nasal bones	2	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Malar	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Inferior maxilla	8	4	4	...	1	5	1	...	1	...	1	...	1	...	1	4	1	...	...
Scapula	3	2	1	...	1	...	1	...	...	1	...	...	...	...	1	1	1	...	...
Humerus	2	...	2	...	2	...	...	...	...	...	...	...	...	...	1	...	1	...	...
Radius	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Rib	2	...	2	...	...	...	...	...	2	...	...	...	...	...	1	1	...	...	...
Pelvis	3	2	1	...	1	1	...	1	...	...	1	...	...	...	...	1	1	...	...
Femur	8	6	2	...	3	2	1	...	...	2	...	...	...	...	...	...	7	...	...
Tibia	16	13	3	2	10	...	1	...	3	...	...	...	...	1	1	10	3	...	...
Tarsus	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Metatarsus	2	...	2	...	1	...	1	...	...	...	...	...	...	1	...	1	...	...	...
Metacarpus	1	...	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Phalanges	5	5	...	1	2	...	1	...	1	...	...	...	2	...	2	1	...	...	...
ARTICULAR SYSTEM.																			
Shoulder—																			
Tuberculous arthritis	4	2	2	1	...	2	1	...	...	...	...	...	...	...	...	2	2	...	...
Ankylosis	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
Elbow—																			
Tuberculous arthritis	15	8	7	4	6	3	1	...	...	1	...	...	...	1	1	3	8	2	...
Gonorrhœal arthritis	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Rheumatoid arthritis	1	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
Septic arthritis	1	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Traumatic arthritis	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Ankylosis	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Synovitis	1	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...
Wrist—																			
Tuberculous arthritis	1	1	...	...	...	1	...	...	1	...	...	...	...	...	1	...	...	...	...
Gonorrhœal arthritis	2	...	2	...	...	...	...	1	1	...	...	...	2	...	...	...	...	...	...
Septic arthritis	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Arthritis ?	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Neurosis	2	1	1	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...

according to authorised Nomenclature—continued.

Duration of residence.									Result.				Remarks.
Dys.	Wks.	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4-5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12						
...	7	3	2	...	...	...	...	...	2	10	...	...
1	1	1	...	...	...	...	...	...	1	2	...	...
...	1	...	...	...	...	...	...	...	...	1	...	...	Hallux.
1	...	...	...	...	...	...	...	...	...	1	...	...
1	1	1	...	...	...	...	...	...	1	1	...	...	Superior maxilla 1.
1	...	...	...	...	...	...	...	...	...	...	1	...	P.M.—Basal meningitis and temporo-sphenoidal abscess.
3	4	...	...	...	...	...	...	...	4	4	...	...	Tubercle 1.
...	3	...	...	...	...	...	...	...	...	3	...	...
...	2	...	...	...	...	...	...	...	2	...	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...
1	1	...	...	...	...	...	...	...	1	1	...	...	Post-typhoid; readmission.
...	2	...	1	...	...	...	...	...	2	1	...	...	Tuberculous 2, injury 1.
...	2	5	...	1	...	...	...	...	7	1	...	...	Syphilitic 1, arthritis of knee 1.
3	3	5	5	...	...	...	...	...	7	8	1	...	"At own request" 1.
...	...	1	...	...	...	...	...	...	1	...	...	...
...	1	1	...	...	...	...	...	...	2	...	...	...
1	...	...	...	...	...	...	...	...	1	...	...	...
4	...	1	...	...	...	...	...	...	4	1	...	...
...	3	1	...	...	...	...	...	...	1	3	...	...
1	...	...	...	...	...	...	...	...	...	...	1	...	Fibrous. "At own request."
5	4	6	...	...	...	...	...	...	2	12	...	1	
...	...	1	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...	Fibrous.
...	...	1	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...	...
...	1	1	...	...	...	...	...	...	1	1	...	...
...	...	1	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...	? Tubercle.
1	1	...	...	...	...	...	...	...	2	...	...	...

TABLE I.—Abstract, showing Diseases, &c., in Classes.

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not stated
ARTICULAR SYSTEM -- <i>con-</i>																			
<i>tinued.</i>																			
<i>Hip—</i>																			
Tuberculous arthritis	51	31	20	7	17	17	3	3	1	3	...	...	...	1	...	9	8	29	4
Hysterical	5	...	5	...	...	2	3	...	...	...	...	...	1	...	1	...	2	1	...
Ankylosis	4	1	3	...	...	3	1	...	...	...	...	...	...	...	1	...	1	2	...
<i>Knee—</i>																			
Tuberculous arthritis	38	16	22	8	6	6	9	4	...	4	1	...	...	1	...	3	5	29	...
Gonorrhœal arthritis	8	5	3	...	...	1	6	...	1	...	...	...	1	5	2	...	...	...	...
Rheumatoid arthritis	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
Puerperal arthritis	1	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...
Septic arthritis	5	3	2	...	...	3	...	...	1	1	...	1	...	...	2	1	...	...	1
Arthritis	2	1	1	...	...	1	1	...	...	...	...	1	...	...	...	...	...	1	...
Synovitis	6	2	4	...	...	1	2	2	...	1	...	...	1	1	2	2	...	...	...
Syphilitic arthritis	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Hysterical	2	1	1	...	...	1	...	1	...	...	...	...	...	...	1	...	1	...	...
Ankylosis	7	2	5	...	...	1	4	1	1	...	...	...	...	...	...	1	2	4	...
Loose bodies	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...
Dislocation of semilunar cartilage	8	8	...	...	...	1	4	2	...	1	...	1	...	...	...	2	3	2	...
<i>Ankle—</i>																			
Tuberculous arthritis	13	9	4	...	2	5	...	1	3	2	...	...	...	...	...	3	6	4	...
Synovitis	1	...	1	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...
Gonorrhœal arthritis	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
Arthritis	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Hysterical	2	...	2	...	1	...	1	...	...	...	...	...	...	...	...	1	...	1	...
Ankylosis	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
<i>Sacro-iliac disease</i>																			
	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
<i>Metatarso-phalangeal—</i>																			
Tuberculous arthritis	3	...	3	...	...	...	2	...	...	1	...	...	...	...	...	...	2	1	...
Spondylitis deformans	4	4	...	...	...	...	1	2	1	...	...	...	...	...	...	...	...	4	...
Rheumatoid arthritis	4	...	4	...	...	...	...	...	2	1	1	...	...	...	1	1	...	2	...
Gonorrhœal arthritis	1	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...
NERVOUS SYSTEM.																			
Neuralgia	3	3	...	...	...	...	...	...	2	...	1	...	...	1	...	2	...	...	...
Sciatica	2	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...
Painful scar	3	3	...	...	...	...	...	...	2	1	...	...	...	...	...	1	...	2	...
Spasmodic torticollis	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Traumatic epilepsy	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Neurosis	2	...	2	...	...	...	1	1	...	...	...	1	...	...	...	...	1	...	...

according to authorised Nomenclature—continued.

Duration of residence.										Result.				Remarks.
Yrs.	Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4-5-13		2-4	1-2	2-4	4-6	6-9	9-12	+12						
..	9	11	17	12	2	...	...	...	12	36	2	1		Fatal case: lardaceous disease.
..	1	2	2	...	...	...	...	...	3	1	1	...		
..	1	1	...	2	...	...	...	...	1	2	1	...		Fibrous 3, osseous 1. Tubercle 3.
..	4	13	15	6	...	...	...	...	12	25	...	1		Fatal: pyæmia. <i>Vide</i> Special Table III.
..	...	3	4	1	...	...	...	...	6	2	...	...		Fingers 1.
1	...	...	...	...	...	...	...	...	1	...	...	...
..	...	...	...	1	...	...	...	...	1	...	...	...
1	...	1	1	1	...	1	...	...	4	...	1	...		"At own request" 1.
..	...	...	2	...	...	...	...	...	2	...	...	...		Cause?
..	3	...	3	...	...	...	...	...	5	1	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...		Gumma of liver.
2	...	...	...	...	...	...	...	...	2	...	...	...
...	3	4	...	...	...	...	...	...	3	3	1	...		Fibrous 6, osseous 1; of wrist 1.
...	1	...	...	...	...	...	...	...	1	...	...	...
1	5	2	...	...	...	...	...	...	8	...	...	...		Internal in all.
4	1	7	...	1	...	...	...	...	4	9	...	...
1	...	...	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	...	...	1	...	...		? Tubercle.
1	1	...	...	...	...	...	...	...	2	...	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...		Fibrous. Old Pott's fracture.
...	...	...	...	1	...	...	...	...	...	1	...	...
...	2	1	...	...	...	...	...	...	2	1	...	...
1	...	1	2	...	...	...	...	...	...	4	...	...		Ankylosis of knees 1; gonorrhœal history 2.
1	3	...	...	...	...	...	...	...	...	4	...	...
1	...	...	...	...	...	...	...	...	1	...	...	...
1	...	1	1	...	...	...	...	...	1	2	...	...		Trigeminal 3.
1	...	...	1	...	...	...	...	...	2	...	...	...
2	1	...	...	...	...	...	...	...	3	...	...	...		Attempted suicide 1.
...	...	1	...	...	...	...	...	...	1	...	...	...		Neurotomy.
...	1	...	...	...	...	...	...	...	1	...	...	...		Old compound fracture; trephined.
...	...	2	...	...	...	...	...	...	2	...	...	...

according to authorised Nomenclature—continued.

Duration of residence.									Result.				Remarks.
s.	Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
1-4	5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12					
	2	3	...	...	...	...	...	...	4	1	...	...
	...	2	2	...	...	...	...	...	...	4	...	...	Stenosis 3.
1	...	2	...	...	...	...	...	...	...	2	...	1	Fatal: phthisis.
	...	1	...	...	...	...	...	...	...	1	...	...	Previous cut throat.
	...	1	...	...	...	...	...	...	1	...	...	...
	...	1	...	...	...	...	...	...	...	...	1	...	
	...	2	...	...	...	...	...	...	...	2	...	...
1	4	1	...	...	...	...	...	...	2	4	...	...
	4	...	1	...	...	...	...	...	...	5	...	...
	...	1	...	...	...	...	...	...	...	1	...	...
11	5	...	...	...	...	...	...	...	10	7	...	...	Antrum of Highmore 17; frontal sinus 1. Re-admission 5.
	...	...	...	...	...	...	...	...	1	...	...	...
7	8	8	3	...	...	...	...	...	6	18	1	1	"At own request" 1.
14	14	1	1	...	...	...	...	...	8	23	...	...	Readmission 3.
	1	...	1	...	...	...	...	...	...	...	1	1	"At own request" 1.
	...	1	...	...	...	...	...	...	...	...	...	2	
	...	...	...	...	...	...	...	...	...	...	...	1	
	1	1	2	...	...	...	...	...	2	...	...	2	
1	...	...	...	...	...	...	...	...	...	...	...	1	
	...	...	2	...	1	...	...	...	3	...	...	...	Cervico-dorsal 1.
2	3	3	9	3	...	1	...	...	2	17	...	2	Dorsal abscess 3, psoas 4, lumbar 1. Dorso-lumbar 3: paraplegia 1, epididymitis 1, contraction of thighs 1.
1	1	7	8	6	2	...	...	...	...	23	...	2	Psoas abscess 13, lumbar 1, iliac 2, gluteal 1. Sacro-iliac disease 1, lumbar and cervical 1. Fatal: cervical myelitis.
1	14	3	2	...	...	...	...	...	18	2	...	...	Patellar 16, olecranon 1, sartorius 2.
	6	8	1	...	...	...	...	...	14	1	...	...	Patellar 9: semimembranosus 4, tuberculous 1; of hip 1, tendo Achillis 1.
1	2	1	...	...	...	...	...	...	4	...	...	...	Wrist 1, foot 2, ankle 1.
	...	1	...	...	...	...	...	...	1	...	...	...	Thumb 1.
	2	2	...	...	...	...	...	...	4	...	...	...	Finger 3, ankle 1. Melon-seed bodies 1.
	...	...	1	...	...	...	...	...	1	...	...	...	Forearm.

TABLE I.—Abstract, showing Diseases, &c., in Classes

DISEASE.	Total.	Sex.		Age.								Duration before admission.								
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not stated.	
DISEASES OF SKIN AND CON- NECTIVE TISSUE.																				
<i>Acute abscess</i>	135	80	55	23	5	21	38	26	11	8	3	15	43	40	11	7	1	4	14	
<i>Tuberculous abscess—</i>																				
Neck	13	6	7	1	2	5	2	1	1	1	...	...	...	...	2	2	1	5	...
Chest	2	1	1	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1	...
Axilla	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Buttock	4	3	1	1	...	2	...	...	...	1	...	...	...	...	...	2	...	...	2
Back	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
Abdominal wall	1	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Loin	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
Hand	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Thigh	4	2	2	...	...	2	1	1	...	...	...	...	...	1	...	...	...	2	1
Leg	1	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...
<i>Special abscess—</i>																				
Liver	3	3	...	...	...	...	1	1	...	1	...	...	...	...	1	1	1	...	...
Iliac	2	1	1	...	...	...	...	...	...	2	...	...	...	...	2	...	...	...	...
Pelvic	2	...	2	...	...	...	1	1	...	...	...	...	1	...	1	...	...	...	...
Abdominal	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Psoas	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...
Lumbar	1	1	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Perinæal	5	5	...	...	...	...	2	...	2	...	1	...	...	3	...	...	...	...	2
<i>Ulcer—</i>																				
Simple	26	14	12	3	2	2	7	5	2	1	4	1	2	2	6	7	2	3	3	
Varicose	7	3	4	...	...	...	2	2	1	...	2	...	1	...	...	1	...	5	...
Circular	3	1	2	...	...	...	...	1	...	2	...	...	...	...	...	...	...	3	...
Gummatous	9	6	3	...	...	1	3	1	1	2	1	...	...	...	1	...	2	6	...
Perforating	5	5	...	...	...	...	...	1	1	2	1	...	...	1	...	...	1	2	1
Tuberculous ?	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...
<i>Sinus.</i>	28	20	8	1	2	5	9	4	4	3	...	...	1	1	6	6	7	5	2
<i>Cellulitis—</i>																				
Extremities	60	39	21	...	1	7	11	14	11	10	6	7	32	15	3	1	...	...	2
Face	3	1	2	...	...	1	...	...	1	...	1	1	1	1	...	...	...	...	...
Scalp	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Neck	12	8	4	2	...	2	5	2	1	...	...	5	3	2	...	...	...	...	2
Abdominal wall	2	1	1	1	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...
Pelvic	2	...	2	...	...	...	1	...	1	...	...	...	...	1	1	...	...	...	...
Tuberculosis of skin	42	9	33	1	1	12	23	3	2	...	...	...	...	1	2	2	7	30	...
Acute eczema	3	2	1	...	...	...	2	1	...	...	...	1	1	...	...	...	...	...	1

TABLE I.—*Abstract, showing Diseases, &c., in Classes.*

DISEASE.	Total.	Sex.		Age.								Duration before admission.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-6	Mts. 6-12	Chronic.	Not stated.
DISEASES OF SKIN AND CON- NECTIVE TISSUE— <i>con- tinued.</i>																			
Pemphigus	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Psoriasis	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...
Angeo-keratoma	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...
Carbuncle	11	8	3	...	...	...	...	5	2	3	1	2	2	5	1	...	...	...	1
Calcified guinea-worm	1	...	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...
DEFORMITIES.																			
Talipes equino-varus	25	20	5	21	3	1	...	...	...	...	...	...	...	2	1	5	17	...	...
" equinus	4	3	1	...	...	3	1	...	...	...	...	...	...	...	...	...	...	4	...
" varus	4	3	1	1	1	2	...	...	...	...	...	...	...	...	...	...	...	4	...
Pes cavus	12	7	5	...	2	8	2	...	...	...	...	...	...	...	...	...	...	11	1
Torticollis	6	4	2	1	4	1	...	...	...	...	...	...	...	...	2	1	3	...	...
Genu valgum	22	11	11	3	7	10	1	...	1	...	...	...	...	...	...	1	18	3	...
" recurvatum	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...
" extorsum	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...
Cicatricial contraction	16	6	10	2	3	5	3	2	1	...	...	...	...	...	...	...	2	11	3
Dupuytren's contraction	6	6	...	...	...	...	...	1	3	2	...	...	...	...	...	...	1	5	...
Hammer-toe	23	16	7	...	17	6	...	...	...	...	...	...	...	...	2	3	14	4	...
Hallux valgus	6	1	5	...	1	3	2	...	...	...	...	...	...	...	1	...	5	...	...
Pes planus	12	9	3	...	8	2	2	...	...	...	...	...	...	...	1	2	7	2	...
Hallux flexus	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Deviated septum	7	2	5	...	4	1	1	...	1	...	...	...	...	...	2	...	5	...	...
Deformed nose	5	2	3	...	2	3	...	...	...	...	...	...	...	...	1	2	1	1	...
Perforation of nose	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
" of palate	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...
Ingrowing toe-nail	6	2	4	...	1	1	4	...	...	...	...	...	2	...	...	2	2	...	...
Rachitic curvature	4	1	3	1	...	3	...	...	...	...	...	...	...	2	...	...	2	2	...
Deformity of femur	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	2	2	...	...
Scoliosis	3	1	2	...	...	3	...	...	...	...	...	...	...	...	1	2	...	2	...
Deformity of spine	2	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Malunited fractures	4	3	1	...	3	1	...	...	...	...	...	...	1	1	1	...	1	...	...
Contracted knee	2	2	...	...	2	...	...	...	...	...	...	...	...	...	...	1	1	...	...
Infantile paralysis	6	2	4	...	1	4	1	...	...	...	...	1	...	...	...	...	5	...	...
Ruptured perinæum	1	...	1	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Eversion of foot	1	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	1	...	...
Coxa vara	3	3	...	...	...	3	...	...	...	...	...	...	...	...	...	...	1	2	...
Buccal fistula	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Claw hands and feet	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Partial intra-uterine am- putation of foot	1	1	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...

According to authorised Nomenclature—continued.

Duration of residence.										Result.				Remarks.
vs.	Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4-5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12							
..	3	1	...	...	...	...	...	...	...	4	...	...	...
1	3	4	1	...	...	...	...	...	...	3	2	3	1	Fatal: marasmus.
..	...	11	7	...	...	...	...	...	...	8	6	4	...	Erysipelas 1. <i>Vide</i> Special Table II.
1	...	...	...	...	...	...	...	...	...	...	...	...	1	
..	...	1	...	...	...	...	...	...	...	...	...	1	...	
..	...	2	...	...	...	...	...	...	...	...	...	2	...	
..	4	...	...	...	...	...	...	...	...	...	...	4	...	
..	2	2	1	...	...	...	...	...	...	1	...	4	...	Double 3. Head forwards 2.
1	1	...	...	...	...	...	...	...	...	...	...	2	...	Meningo-myelocoele 5; lumbo-sacral 5. Para-
2	...	...	...	...	...	...	...	...	...	...	...	...	...	lysis of legs 3, prolapse of rectum 1, nævus 1,
..	...	1	...	...	...	...	...	...	...	...	...	...	...	talipes 1. Suppurative meningitis 3.
1	1	1	3	...	...	...	...	...	...	...	3	3	...	Colotomy 2.
..	...	...	...	1	...	1	...	...	...	...	2	...	...	Communication with urethra 2.
1	1	1	3	...	...	...	...	...	...	...	2	...	...	Readmission 1.
..	...	...	...	1	...	...	...	...	...	...	1	...	...	Readmission 3.
..	...	1	...	...	...	...	...	...	...	1	...	...	...
..	3	1	...	1	...	...	...	...	...	2	2	...	1	Spleen enlarged 1, glands of neck 3, of groin 1.
1	1	1	...	...	...	...	...	...	...	1	...	...	1	Fatal case: infection of ulcer of scalp; broncho-
..	...	...	1	...	...	...	...	...	...	...	...	1	...	pneumonia.
..	1	...	...	...	...	...	...	...	...	...	...	1	...	Transferred to Medical.
..	...	...	...	...	...	...	...	...	...	...	...	1	...	
1	...	1	...	...	...	1	...	...	...	...	1	...	1	Cause?
..	...	1	...	...	...	...	...	...	...	...	1	...	1	
1	...	1	...	...	...	...	...	...	...	...	1	...	1	Previous ovariectomy.
1	1	1	...	...	...	...	...	...	...	2	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	1	...	Transferred to Medical.
..	1	...	...	...	...	...	...	...	...	...	...	1	...	Transferred to Medical.
1	1	1	...	...	...	...	...	...	...	2	...	1	...	Transferred to Medical 1.
1	1	...	...	...	...	...	...	...	...	1	...	...	1	
1	...	...	...	...	...	...	...	...	...	1	...	...	...
7	21	9	...	...	...	...	...	...	...	58	8	1	...	For fitting of instruments 8.
6	8	1	...	...	...	...	...	...	...	12	1	2	...	
										1952	705	181	142	

TABLE II.—*Abstract, showing Injuries, &c., in*

INJURIES.	Total.	Sex.		Age.										Duration before admission.					
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Hrs. 1-6	Hrs. 7-12	Hrs. 13-24	Dys. 1-3	Dys. 3-6	Dys. +6		
GENERAL INJURIES.																			
Burns	48	22	26	30	5	3	5	2	...	1	2	44	...	...	2	...	2
Scalds	45	27	18	38	3	3	...	...	1	...	...	42	...	...	3	...	...
LOCAL INJURIES.																			
Wounds and contusions of scalp	19	12	7	...	...	2	3	5	3	3	3	18	...	...	...	...	1
Wounds and contusions of face	6	6	...	...	...	2	1	...	1	1	1	5	1	...	...	...	...
Bullet in face . .	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Bead in ear . . .	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Wound of tongue .	1	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Wound of gum . .	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Concussion . . .	50	40	10	6	11	6	8	10	4	3	2	48	1	...	...	...	1
<i>Fractures of vault of skull—</i>																			
Simple	3	2	1	1	...	...	2	...	...	...	...	1	...	...	1	...	1
Compound . . .	3	2	1	...	...	...	...	1	...	2	...	2	...	...	1	...	...
Simple depressed .	1	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Compound depressed	7	6	1	...	2	...	1	1	1	1	1	6	...	...	...	...	1
<i>Fractures of base .</i>	13	11	2	1	3	...	2	2	1	2	2	13	...	...	...	...	...
<i>Fractures of base and vertex—</i>																			
Simple	5	4	1	...	1	...	1	2	...	1	...	4	...	...	1	...	...
Simple depressed .	1	1	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Compound depressed	1	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
<i>Fractures of face bones—</i>																			
Superior maxilla .	3	3	...	...	...	...	2	...	...	1	...	3	...	...	...	...	...
Inferior maxilla .	3	3	...	...	...	...	1	1	1	...	...	3	...	...	...	...	...
Nasal bones . . .	2	1	1	...	1	...	...	1	...	...	...	2	...	...	...	...	...
Malar	1	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...
<i>Injuries of neck—</i>																			
Cut throat . . .	9	9	...	...	...	...	2	2	3	1	1	9	...	...	...	...	...
<i>Injuries of thorax—</i>																			
Contusions . . .	10	9	1	2	1	...	2	2	2	1	...	9	...	...	...	1	...
Wounds	5	4	1	...	...	2	1	1	...	1	...	5	...	...	...	...	...
Fractured ribs . .	15	11	4	...	3	1	1	3	3	1	3	14	...	...	1	...	...
<i>Injuries of spine—</i>																			
Sprains and contusions	20	17	3	1	1	2	3	6	5	2	...	17	...	...	2	...	1

Classes, according to authorised Nomenclature.

Duration of residence.									Result.				Remarks.
ys. -4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
9	10	8	7	3	...	1	...	...	27	...	...	21	
7	13	14	11	...	...	...	...	...	37	...	...	8	
5	12	1	1	...	...	...	...	...	18	...	...	1	Concussion 2; fractured radius and ulna 1. Fatal case: pyæmia. Epilepsy 1.
1	4	1	...	...	...	...	...	...	6	...	...	...
...	1	...	...	...	...	...	...	...	...	...	1	...	Hæmophilia.
...	...	1	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...	...	Scalp wound 8; of face 2; fractured rib 1; spine of scapula 1. Transferred to Medi- cal 1.
24	20	5	1	...	...	...	...	...	48	...	1	1	
2	1	...	...	...	...	...	...	...	1	...	...	2	Ruptured middle meningeal 2.
1	1	1	...	...	...	...	...	...	3	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...	...	5 Ruptured middle meningeal 1.
5	...	1	1	...	...	...	...	...	1	...	...	6	
2	8	2	1	...	...	...	...	...	10	1	...	2	5 Ruptured middle meningeal 1.
5	...	...	...	...	...	...	...	...	...	...	...	5	
1	...	...	...	...	...	...	...	...	...	...	...	1	Alveolar border detached 1. Angle 1; alveolar process 1; comminuted 1. Recurrent hæmorrhage 1; concussion 1. Compound.
...	1	...	...	...	...	...	...	...	1	...	...	...
1	1	1	...	...	...	...	...	...	3	...	...	...	3 Suicidal 8; homicidal 1.
2	...	1	...	...	...	...	...	...	3	...	...	...
...	...	2	...	...	...	...	...	...	2	...	...	...	Bullet wounds 2. Fractured tibia 1; fibula 1; scalp wound 2; ruptured bronchus 1. See also Ruptured liver and kidney.
...	1	...	...	...	...	...	...	...	1	...	...	...
5	4	...	...	...	...	...	...	...	6	...	...	3	4
6	3	1	...	...	...	...	...	...	10	...	...	...
2	2	...	1	...	...	...	...	...	5	...	...	...	4
5	5	4	1	...	...	...	...	...	11	...	...	...
4	14	1	1	...	...	...	...	...	20	...	...	...

TABLE II.—Abstract, showing Injuries, &c., in

INJURIES.	Total.	Sex.		Age.								Duration before admission.					
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Hrs. 1-6	Hrs. 7-12	Hrs. 13-24	Dys. 1-3	Dys. 3-6	Dys. +6
LOCAL INJURIES—contd.																	
<i>Injuries of spine—contd.</i>																	
Wounds	1	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
Fracture	4	4	...	...	...	1	2	1	...	...	...	3	...	...	...	...	...
Hæmorrhage into spinal cord	1	1	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...
<i>Injuries of abdomen—</i>																	
Contusions	23	20	3	2	5	6	6	3	1	...	...	22	...	...	1	...	...
Wound of wall	1	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...
Punctured wound of abdomen	2	2	...	...	...	2	...	...	...	...	...	2	...	...	...	...	...
Ruptured kidney	6	5	1	2	2	1	...	...	...	1	...	6	...	...	...	...	...
Ruptured liver	3	3	...	...	1	1	...	...	1	...	...	3	...	...	...	...	...
Ruptured intestine	6	6	...	...	1	...	2	1	1	...	1	6	...	...	...	...	...
Glass in stomach	1	1	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...
Ruptured bladder	1	1	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
<i>Injuries of external genitalia—</i>																	
Laceration of penis and urethra	1	1	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...
Ruptured urethra	2	2	...	...	...	...	...	1	1	...	...	2	...	...	...	...	...
Hæmatoma of cord	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Wound of perinæum	1	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
<i>Injuries of pelvis—</i>																	
Contusion	1	...	1	...	...	...	...	1	...	...	...	1	...	...	...	...	...
Fractured pelvis	10	10	...	...	...	1	1	2	2	2	2	9	...	...	1	...	...
<i>Injuries of upper extremity—</i>																	
Contusions	2	2	...	...	1	...	1	...	...	...	...	1	...	...	...	...	1
Wounds	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Hæmatoma of forearm	1	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Wound of forearm	2	2	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...
Wound of hand	3	...	3	1	...	2	...	...	...	...	...	2	...	...	...	...	1
Cut tendons	12	9	3	...	...	5	4	3	...	...	...	6	...	...	...	...	6
Foreign body	17	5	12	...	...	8	5	3	1	...	...	...	...	...	4	1	12
Divided median nerve	7	6	1	...	...	2	2	1	1	1	...	4	...	...	...	...	3
Divided ulnar nerve	5	3	2	...	...	1	2	1	1	...	...	3	...	...	...	...	2
Injury of brachial plexus	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Dislocation of humerus	12	3	9	...	...	...	...	1	2	3	6	1	...	...	...	1	10

ases, according to authorised Nomenclature—continued.

Duration of residence.									Result.				Remarks.
Dys 4-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12		C.	R.	U.	D.	
1	1	Cervical 2; dorsal 1; spinous process 1.
1	...	1	...	...	...	...	...	...	1	1	...	2
...	1	...	...	...	...	...	...	...	...	1	...	...
7	1	23	Prolapse of gut 1; empyema 1.
...	1	...	...	...	...	...	...	...	1	...	...	...
...	1	1	...	...	...	...	...	...	2	...	...	...
2	1	1	5	1	1 Traumatic hydronephrosis 1; fractured ribs 1; paralytic distension of gut 1. 3 Fractured ribs 2. 4 Colon 1; cæcum 1; small gut 4. Compound fissured fracture of vault 1.
...	...	...	...	...	...	...	...	...	...	...	...	3
...	1	2	...	...	...	...	...	...	2	...	...	4
...	1	1
...	...	...	...	...	...	...	...	...	...	...	...	1
...	
1	1	See "Fractured Pelvis."
...	2	...	...	...	...	...	...	...	2	...	...	...
1	...	...	...	...	...	...	...	...	1	...	...	...
...	1	4 Crest of ilium 6; compound 1; fractured femur 1; clavicle 1; spine 1; ruptured urethra 2.
...	...	1	...	...	...	...	...	...	1	...	...	...
3	2	...	1	...	...	...	...	...	6	...	...	4
1	2	Fractured ribs 1.
...	...	1	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	...	1	...	...	...
...	2	2	Wound of ulnar artery.
...	2	...	...	...	...	...	...	...	3	...	...	...
6	3	...	...	...	...	...	...	...	11	...	1	...
15	15	...	2	...	Cut ulnar 1; cut tendons 5. Previous suture 1; divided median 1; tendons 4.
3	4	...	...	...	...	...	...	...	7	...	...	...
4	1	...	...	...	...	...	...	...	5	...	...	...
1	1	Previous resection of clavicle.
2	2	1	...	...	...	...	...	...	7	4	1	...

Classes, according to authorised Nomenclature—continued.

Duration of residence.									Result.				Remarks.
s.	Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4-5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12						
2	...	...	...	...	...	...	...	...	1	1	...	...
1 2	1	...	...	...	...	...	...	...	4	...	...	...	Compound 2; metacarpo-phalangeal 2.
1 1	1	...	...	...	...	...	...	...	3	...	...	...	Colles's fracture 1.
2 2	6	...	...	1	...	...	...	...	10	...	...	1	Fatal case: chronic renal; cirrhosis of liver.
1	...	...	...	...	...	...	...	...	1	...	...	...
1	...	1	...	...	...	...	...	...	1	...	...	1	Olecranon 1.
...	1	...	...	...	...	...	...	...	1	...	...	...
2 4	5	3	...	...	...	...	...	...	12	2	...	...	Compound 1; ulnar nerve embedded in callus 1.
3	1	...	...	...	...	...	...	...	4	...	...	...	Colles's 3; double 1.
...	1	...	...	...	...	...	...	...	1	...	...	...	Olecranon.
1	1	...	...	...	...	...	...	...	2	...	...	...
2 5	2	...	...	...	...	...	...	...	9	...	...	...	Index 1; all 1.
													Cut tendons 1.
5 17	...	...	...	...	...	...	...	...	22	...	...	...
...	...	1	...	...	...	...	...	...	1	...	...	...
...	...	...	1	...	...	...	...	...	1	...	...	...
1 2	1	...	...	...	...	...	...	...	3	...	...	1	Fatal case: gangrene; amputation of thigh.
1 1	2	...	...	...	...	...	...	...	3	...	...	...
1	...	3	...	...	...	...	...	...	4	...	...	...	Traumatic gangrene of toes 1.
4 3	...	...	...	...	...	...	...	...	7	...	...	...
1 6	4	...	1	...	...	...	...	...	12	...	...	...	Ruptured internal lateral ligament 3; internal lateral and posterior crucial 1.
1 1	1	...	...	...	...	...	...	...	2	...	...	...
...	...	1	...	...	...	...	...	...	1	...	...	...	Septic arthritis.
...	4	...	...	...	...	...	...	...	4	...	...	...	Dorsal 3; thyroid 1.
1	...	...	...	...	...	...	...	...	1	...	...	...	Edgeways.
3 11	18	25	6	...	...	...	...	...	63	...	...	...
1 1	...	...	...	...	...	...	...	...	...	...	...	2	
...	...	1	...	...	...	...	...	...	1	...	...	...
1	...	...	1	...	...	...	...	...	1	...	...	1	Fatal case: double ablation of thighs.

Classes, according to authorised Nomenclature—continued.

Duration of residence.										Result.				Remarks.
Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12		C.	R.	U.	D.	
1	3	4	8	1		8	8	1	...	Comminuted 1.
...	2	12	8	1	1	...	...	...		24	...	...	...
13	73	12	1	...	...	...	...	...		99	...	...	...
1	...	1		2	Fatal case: double traumatic gangrene.
...	3	6	3	...	3	...	...	...		15	...	...	...
...	1	2	1	1	...	...	...	...		4	...	...	1
1	4		5	Dislocation of foot. Wound of ankle-joint.
...	...	...	1	...	...	...	...	...		1	...	...	...
6	12	1	...	...	...	...	...	...		19	...	...	...
...	...	1	...	...	...	...	...	...		1	...	...	...
...	...	...	1	...	...	...	...	...		1	...	...	...
...	...	...	...	...	1	...	...	...		1	...	...	...
...	...	1	...	...	...	...	...	...		1	...	...	...
...	...	...	1	...	...	...	...	...		1	...	...	...
...	...	1	...	...	...	...	...	...		1	...	...	...
...	...	...	1	...	...	1	...	...		2	...	...	...
...	...	2	2	...	...	...	...	...		3	1	...	...
										685	20	8	76	
										1952	705	181	142	
										2637	725	189	218	
										3769				

Surgical Operations.

Duration of residence after operation.										Result.				Remarks.
Dys. 4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mrs. 9-12	Mts. +12		C.	R.	U.	D.	
	3	8	...	...	...	...	...	...	10	...	1	...	...	Scirrhus 2; Paget's eczema of nipple 1; tuberculous mastitis 2; chronic interstitial mastitis 4; hypertrophy of breasts 1; soft cystic fibro-adenoma 2.
1	6	23	4	...	...	...	...	...	31	2	...	1	...	Scirrhus 31; colloid carcinoma 1; encephaloid 1; tuberculous mastitis 1. Fatal case: shock. P.M.—Cirrhosis of liver.
...	...	1	...	...	...	...	...	...	1	...	...	...	...	Axillary mammary carcinoma.
...	3	4	1	...	...	...	...	...	1	7	...	...	...	Previous scirrhus carcinoma of breast. Amputation of shoulder 1.
...	...	2	...	...	...	...	...	...	...	2	...	...	...	Previous scirrhus carcinoma of breast.
2	6	2	2	...	...	...	...	...	...	12	...	...	...
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Arose in cutaneous glands.
...	1	...	...	...	...	...	...	...	...	1	...	...	...	Arose in cutaneous glands.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Duct carcinoma.
...	1	...	1	...	...	...	...	...	...	1	...	...	...	Kraske's method 5; parasacral 1; perineal 1.
...	...	...	...	...	1	...	...	...	...	1	...	...	...	Resection and artificial anus, afterwards closed.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Resection and lateral anastomosis; previous colotomy.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Resection and lateral anastomosis; previous colotomy.
1	3	11	...	...	...	...	...	...	11	4	...	...	...	Laryngotomy 1, Kocher 1; partial excision 1, ligature of lingual 1.
...	...	2	...	...	...	...	...	...	2	...	...	...	...	Floor of mouth involved 1; erysipelas 1. See Special Table II.
...	1	2	...	...	...	...	...	...	...	1	1	...	1	Fatal case: pyæmia. See Special Table III.
...	3	2	...	...	...	...	...	...	...	5	...	...	...	Lower in all.
...	1	2	...	...	...	...	...	...	...	2	1	...	...
1	...	...	...	...	...	...	...	...	...	1	...	...	...
...	1	2	2	...	...	...	...	...	...	2	3	...	...	Recurrent 3; upper jaw 1; excision of lower jaw 1.
...	1	...	...	...	...	...	...	...	...	...	...	...	1	Laryngotomy and division of cheek.
...	...	2	...	...	...	...	...	...	...	2	...	...	...	Cheek slit 1.
1	...	...	...	...	...	...	...	...	...	...	...	...	1	Partial excision of larynx.
...	1	...	...	...	...	...	...	...	...	1	...	...	...	Partial excision.
...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Amputation of forearm and clearance of axilla.
...	...	2	1	1	...	...	...	...	...	2	2	...	...	Excision of glands 3; Pearce Gould's method 1.
...	1	...	...	...	...	...	...	...	...	1	...	...	...
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Supra-pubic route.

TABLE III.—Surgical

SURGICAL OPERATIONS.	Total.	Sex.		Age.								
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	
REMOVAL OF TUMOURS AND NEW GROWTHS— <i>continued.</i>												
Epithelioma of glands	9	9	...	...	...	...	...	2	1	3	3
Rodent ulcer	14	6	8	...	...	...	...	2	4	3	5
Sarcoma of neck	1	...	1	...	...	...	1	...	...	...	...
„ of back	1	...	1	...	...	...	...	...	...	...	1
„ of testis	1	1	...	...	...	...	...	...	...	...	1
„ of thigh	2	1	1	...	...	...	1	...	1	...	...
„ of leg	7	5	2	...	2	1	...	1	...	...	3
„ of toe	1	1	...	...	...	...	...	...	1	...	...
„ of adrenal	1	1	...	...	...	...	...	...	1	...	...
„ of temporal bone	1	1	...	...	...	1	...	...	...	...	...
„ of antrum	3	3	...	...	...	...	1	...	1	...	1
„ of lower jaw	3	2	1	...	...	3	...	...	...	...	...
„ of humerus	2	2	...	...	...	1	1	...	...	...	...
„ „ recurrent	2	2	...	...	...	1	1	...	...	...	...
„ of femur	2	...	2	...	...	...	2	...	...	...	...
„ of tibia	2	...	2	...	...	...	1	...	1	...	...
„ „ recurrent	2	1	1	...	...	...	1	...	1	...	...
„ of fibula	1	1	...	...	...	1	...	...	...	...	...
Lipoma	18	8	10	...	...	...	3	5	5	3	2
Polypi	12	3	9	...	...	3	2	1	3	1	2
Papilloma	9	7	2	3	...	...	1	...	...	3	2
Nævus, excision	10	3	7	6	2	1	...	1	...	...	...
„ electrolysis	3	3	...	...	3	...	...	...	...	...	...
Fibroma	10	2	8	...	...	3	1	3	1	1	1
Exostosis	16	6	10	...	2	8	3	2	...	1	...	
Chondroma	2	2	...	...	...	1	...	...	...	1	...
Fibro-adenoma	7	...	7	...	...	1	5	1	...	...	...
Cystic fibro-adenoma	2	2	...	1	...	...	...	1	...	...	...
Parotid tumour	5	3	2	...	...	...	1	1	1	2	...
Cystic hygroma	1	...	1	1	...	...	...	...	...	...	...
Pigmented mole	1	...	1	...	...	1	...	...	...	...	...
Granuloma	2	2	...	...	...	1	1	...	...	...	...
Fibro-myoma	2	...	2	...	...	...	...	...	1	1	...

operations—continued.

Duration of residence after operation.									Result.				Remarks.
s.	Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4	5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12					
..	7	1	1	...	...	...	...	...	3	6	...	...	Cervical 8, groin 1. Secondary in all.
2	6	4	...	2	...	...	...	...	10	4	...	...
..	1	...	...	...	...	...	...	...	1	...	...	...	Spindle-celled.
..	...	1	...	...	...	...	...	...	1	...	...	...	Spindle-celled.
..	1	...	...	...	...	...	...	...	...	...	...	1	Castration; round-celled.
..	1	...	...	1	...	...	...	...	2	...	...	...	Spindle-celled 2.
..	1	2	2	2	...	...	...	...	4	3	...	...	Recurrence 4; amputation of thigh 1.
..	...	1	...	...	...	...	...	...	1	...	...	...	Alveolar.
1	...	...	...	...	...	...	...	...	...	...	...	1	Dissemination; amputation of shoulder.
1	...	...	...	...	...	...	...	...	...	...	...	1	Excision in two stages. Death from shock.
..	1	1	...	1	...	...	...	...	1	1	...	1	Myeloid 1; round-celled 2. Excision of upper jaw 3.
..	1	1	1	...	...	...	...	...	2	...	...	1	Myeloid 2; alveolar 1. Excision of lower jaw 2. Fatal case: dissemination.
..	...	1	...	1	...	...	...	...	...	2	...	...	Mixed-celled 1; calcifying 1. Spontaneous fracture 1. Amputation of shoulder 2.
..	...	1	1	...	...	...	...	...	1	1	...	...	Excision of scapula 2.
..	...	1	...	1	...	...	...	...	2	...	...	...	Amputation and re-amputation of thigh; same case. Central, round-celled.
..	1	...	1	...	...	...	...	...	...	2	...	...	Excision 2. Parosteal and round-celled 1; myxo-fibro-sarcoma 1.
..	1	...	...	1	...	...	...	...	...	2	...	...	Amputation of thigh 1; cavernous 1; spindle-celled 1.
..	...	1	...	...	...	...	...	...	1	...	...	...	Periosteal; osteoid sarcoma. Amputation of leg.
1	13	3	1	...	...	...	...	...	18	...	...	...	Retro-peritoneal 1.
7	4	1	...	...	...	...	...	...	12	...	...	...	Nasal in all.
..	1	5	3	...	...	...	...	...	9	...	...	...	Tongue 2; larynx 2; bladder 2; scalp 2; foot 1.
..	7	3	...	...	...	...	...	...	7	3	...	...
..	...	1	2	...	...	...	...	...	3	...	...	...
4	5	1	...	...	...	...	...	...	10	...	...	...	Upper jaw 3; lower jaw 4; finger 1; labium 1; keloid 2. Excision of lower jaw 1.
2	11	3	...	...	...	...	...	...	15	1	...	...	Subungual 4; femur 3; tibia 3; fibula 1; scapula 1; radius 1; of nose 1; frontal 1; auditory meatus 1.
..	2	...	...	...	...	...	...	...	2	...	...	...	Chondromyxoma of toe 1; amputation.
4	3	...	...	...	...	...	...	...	7	...	...	...	Breast 7.
..	1	1	...	...	...	...	...	...	2	...	...	...	Testicle 2; castration. Excision of hydrocele of cord 1.
2	3	...	...	...	...	...	...	...	5	...	...	...
..	1	...	...	...	...	...	...	...	1	...	...	...
..	...	1	...	...	...	...	...	...	1	...	...	...	Excision with grafting.
1	1	...	...	...	...	...	...	...	2	...	...	...	Multiple 1.
..	1	1	...	...	...	...	...	...	...	1	...	1	Abdominal hysterectomy and ovariectomy 1; multiple 1.

TABLE III.—*Surgical.*

SURGICAL OPERATIONS.	Total.	Sex.		Age.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60
REMOVAL OF TUMOURS AND NEW GROWTHS— <i>continued.</i>											
Adenoids	39	19	20	4	11	22	2	...	...	...	...
Cysts—											
Dermoid	4	2	2	...	1	1	2	...	...	...	...
Thyro-lingual	1	1	...	...	...	1	...	...	...	...	...
Branchial	1	1	...	...	...	1	...	...	...	...	...
Ranula	1	1	...	...	...	...	1	...	...	...	...
Of neck	1	...	1	...	...	1	...	...	...	...	...
Appendicular	1	...	1	...	...	1	...	...	...	...	...
Of jaw	1	...	1	...	...	...	...	1	...	...	...
Sebaceous	1	1	...	...	...	...	...	1	...	...	...
Hydatid	3	3	...	...	2	...	...	1	...	...	...
Of Bartholin	1	...	1	...	...	...	...	1	...	...	...
Ovarian	7	...	7	...	...	...	2	2	...	...	3
„ suppurating	1	...	1	...	...	...	...	1	...	...	...
Broad ligament	3	...	3	...	...	...	1	...	2	...	...
DIGESTIVE SYSTEM.											
Cancerum oris	2	...	2	2	...	...	...	...	...	...	...
Chronic superficial glossitis	2	2	...	...	...	...	...	...	...	...	2
Salivary calculus	1	1	...	...	...	...	1	...	...	...	...
Stricture of pylorus	1	...	1	...	...	...	...	...	1	...	...
Herniotomy—											
Inguinal	2	2	...	1	...	...	...	...	...	...	1
Femoral	1	...	1	...	...	...	...	...	1	...	...
Herniotomy and fæcal fistula	1	1	...	...	...	...	...	1	...	...	...
„ and resection of gut	2	...	2	...	...	...	...	1	...	...	1
„ and radical cure—											
Inguinal	15	14	1	4	1	1	4	...	1	3	1
Femoral	17	2	15	...	...	...	...	2	6	4	5
Umbilical	3	...	3	...	...	...	...	...	2	1	...
Ventral	1	1	...	...	...	...	...	...	1	...	...
Radical cure—											
Inguinal	139	123	11	8	10	33	47	20	13	5	3
Femoral	13	3	10	...	...	...	4	4	1	3	1
Umbilical	6	2	4	...	...	1	...	1	3	1	...
Ventral	7	...	7	...	...	...	2	3	2	...	...
Incision of appendicitic abscess	16	15	1	...	1	9	4	2	...	...	...

operations—continued.

Duration of residence after operation.										Result.				Remarks.
ys. 4-5	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12		C.	R.	U.	D.	
0	7	2	...	...	...	...	...	...	38	...	...	1		Tonsils 10. Fatal: septicæmia.
1	3	...	...	...	...	...	...	...	4	...	...	...		Sublingual 2; ear 1; implantation 1.
1	...	...	...	...	...	...	...	...	1	...	...	...		Suppurating; incision and scraping.
1	1	...	...	...	...	...	...	...	1	...	...	...		Excision.
1	...	1	...	...	...	...	...	...	1	...	...	...		? Nature.
1	...	...	...	...	...	...	...	...	1	...	...	...		Extraction of tooth.
1	...	...	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	...	1	...	...	...
1	...	...	1	2	...	...	...	...	3	...	...	...		Incision and drainage 2; excision 1. Liver 2; lung 1.
1	1	...	...	...	...	...	...	...	1	...	...	...
1	1	4	1	...	...	...	...	...	4	1	...	2		Fatal cases: peritonitis. Papilliferous 1; twisted pedicle 1; appendicitis 1. Incision and drainage 1.
...	...	1	...	...	...	...	...	...	1	...	...	...		Cystic adenoma of opposite ovary. Double ovariectomy.
...	...	1	...	1	1	...	...	...	3	...	...	...		Incision and drainage 1; hysterectomy and ovariectomy 1. Fibro-sarcoma of wall 1.
...	...	1	1	...	...	...	...	...	2	...	...	...		Same case; excision of gangrene.
1	1	1	...	...	...	...	...	...	...	2	...	...		Excision.
1	...	...	...	...	...	...	...	...	1	...	...	...		Excision; submaxillary.
...	...	1	...	...	...	...	...	...	1	...	...	...		Pyloroplasty.
1	...	...	1	...	...	...	...	...	1	...	...	1		Suture of perforation of bowel 1. Interstitial hernia 1.
...	...	1	...	...	...	...	...	...	1	...	...	...		Inguinal.
1	1	...	1	...	...	...	...	...	1	...	...	2		Resection of 8 inches of gut and artificial anus 1; resection and circular enterorrhaphy with Murphy's button 1.
1	7	6	1	...	...	...	...	...	13	...	...	2		
1	7	9	...	...	...	...	...	...	16	...	...	1		
...	...	3	...	...	...	...	...	...	3	...	...	...
...	...	1	...	...	...	...	...	...	1	...	...	...
1	46	85	7	...	...	...	...	...	137	...	...	2		Fatal cases: renal disease 1; hæmorrhage 1.
2	8	2	...	...	...	...	...	...	12	...	...	1		Fatal case: pneumonia.
...	...	6	...	...	...	...	...	...	6	...	...	...
...	...	3	4	...	...	...	...	...	7	...	...	...
1	...	5	6	4	...	...	...	...	15	...	...	1		

TABLE III.—*Surgical*

SURGICAL OPERATIONS.	Total.	Sex.		Age.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60
DIGESTIVE SYSTEM— <i>continued.</i>											
General peritonitis from appendicitis	15	12	3	...	8	4	1	2	...	...	...
Appendectomy	44	32	12	...	...	12	17	8	7	...	...
Intussusception	8	7	1	7	...	...	1	...	...	...	...
Suture of perforated gastric ulcer	9	5	4	...	...	...	5	1	2	1	...
" " duodenal ulcer	2	1	1	...	...	...	1	1	...	...	...
" " typhoid ulcer	1	1	...	...	...	...	...	...	1	...	...
" " cæcal ulcer	1	1	...	...	...	...	...	...	...	1	...
Matting of small gut	6	2	4	1	...	1	1	...	1	1	1
Strangulation by band	1	...	1	...	1	...	...	...	...	...	...
Tuberculous peritonitis.	4	2	2	2	1	1	...	...	...	...	...
Fæcal fistula	2	2	...	...	...	2	...	...	...	...	...
Cholecystotomy	2	1	1	...	...	...	...	...	1	...	1
Cholelithotomy	6	1	5	...	...	1	2	1	...	2	...
Closure of artificial anus	5	3	2	...	...	...	...	3	2	...	...
Hepatic abscess	3	2	1	...	...	...	1	1	...	...	1
Subdiaphragmatic abscess	6	4	2	...	...	1	5	...	...	...	...
Suture of ruptured gut	4	4	...	...	1	...	2	1	...	...	...
Ruptured liver	2	2	...	...	1	1	...	...	...	...	...
Lateral anastomosis of gut	3	1	2	...	...	...	...	1	1	1	...
Cœliotomy, exploratory	30	16	14	2	1	...	3	4	7	10	3

erations—continued.

Duration of residence after operation.								Result.				Remarks.
Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
2	1	3	...	...	...	...	...	4	...	...	11	Irrigation 7; appendectomy 6. <i>Vide</i> Medical Society's 'Transactions' for cases that recovered.
7	30	6	...	...	...	...	...	43	...	...	1	Fatal case: peritonitis arising before operation.
...	1	...	...	...	...	...	...	1	...	...	7	Cœliotomy and reduction 6; excision of intussusception 1. Ileo-cæcal 5; small intestine 2; multiple 1.
...	...	1	1	...	...	...	...	1	...	...	8	Anterior surface in all.
1	...	...	...	...	...	...	...	...	...	...	2	General peritonitis 2.
...	...	...	...	...	...	...	...	...	...	...	1	3 perforations.
...	...	...	...	...	...	...	...	...	...	...	1	After strangulated hernia.
...	1	1	1	...	...	...	...	3	...	...	3	Separation of adhesions 6. Tuberculous peritonitis 1; inguinal hernia 1; previous ovariectomy 1; excision of Fallopian tubes 1.
...	...	...	...	...	...	...	...	...	...	...	1	Appendix adherent to caseous mesenteric gland formed the band.
1	1	1	1	...	...	...	...	1	2	...	1	Previous appendicitis 2.
...	...	1	1	...	...	...	...	...	2	...	...	Empyema of gall-bladder 1; assumed cholelithiasis 1.
...	2	...	...	...	...	...	...	1	1	...	...	Empyema of gall-bladder 2.
...	2	4	...	...	...	...	...	5	...	...	1	Strangulated hernia 1; carcinoma of cæcum 2; ulcerative colitis 2. Resection and circular enterorrhaphy 2; excision of portion of ileum 1; of colon 1; plastic 1.
...	1	2	1	...	...	...	...	3	1	...	1	
...	...	3	...	...	...	...	...	2	...	...	1	
3	...	3	...	...	...	...	...	1	1	...	4	Perforated gastric ulcer 2; appendicitis 3; ruptured gut 1. Perisplenic 1. Pelvic peritonitis 1. Pleural route in 2.
...	1	2	...	...	...	...	...	2	...	...	2	Cæcum 1; small gut 3.
...	...	...	...	...	...	...	...	...	...	...	2	Cœliotomy and plugging of rent.
...	2	...	1	...	...	...	...	...	3	...	...	Ileum to sigmoid 2; small gut 1. Carcinoma of cæcum 1; of small gut 1; ulcerative colitis 1. See also "Removal of Tumours."
10	13	2	1	...	...	...	...	5	9	5	11	Malignant of abdomen 1; carcinoma of liver 3; gall-bladder 1; stomach 5; pylorus 1; cæcum 1; rectum 1. Sarcoma of ovary 1; of peritoneum 2; retro-peritoneal 1; gumma of liver 1; broad ligament cyst 1. Exploration of bile-ducts 1; acute hæmorrhagic infiltration of kidney 1; paralytic distension of gut 1; abdominal pain 3; constipation 2; pelvic peritonitis 3. Anæsthetic death 1.

TABLE III.—*Surgical*

SURGICAL OPERATIONS.	Total.	Sex.		Age.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60
DIGESTIVE SYSTEM—continued.											
Gastrostomy	11	9	2	...	...	...	...	...	5	4	2
Enterotomy	5	1	4	...	...	...	...	...	1	1	3
Right inguinal colotomy	3	1	2	...	...	...	...	1	...	2	...
Median colotomy	4	2	2	...	...	...	...	1	1	1	1
Left inguinal colotomy	21	18	3	4	...	...	3	...	5	5	4
Fistula in ano	40	30	10	...	...	2	7	17	9	4	1
Hæmorrhoids, Whitehead	38	26	12	...	...	...	8	11	14	5	...
" partial Whitehead	8	5	3	...	...	...	1	4	1	2	...
" ligature and excision	8	6	2	...	...	...	2	3	2	...	1
Proctotomy	2	1	1	...	...	...	...	2	...	...	...
Prolapse of rectum	5	...	5	...	...	...	2	3	...	...	...
Fissure in ano	9	3	6	...	...	1	1	4	...	2	1
GENITO-URINARY SYSTEM—											
Circumcision	21	21	...	6	2	7	5	1	...	...	...
Vesico-vaginal fistula	7	...	7	...	...	...	6	1	...	...	...
Suture of urethra	4	4	...	...	...	1	...	2	1	...	...
Perineal section	3	3	...	...	...	1	1	...	...	1	...
Cock's perineal puncture	5	5	...	...	...	...	1	1	1	2	...
Internal urethrotomy	3	3	...	...	...	...	...	...	2	1	...
External urethrotomy	17	17	...	...	...	...	1	6	4	4	2
Incision of extravasation of urine	4	4	...	...	...	...	...	1	3	...	...
" of urethral abscess	8	8	...	...	...	...	2	1	3	...	2
" of pelvic abscess	2	...	2	...	...	...	1	1	...	...	...
Excision of pelvic hæmatocele	1	...	1	...	...	...	...	...	1	...	...
Supra-pubic cystotomy	17	14	3	1	1	1	...	2	2	2	8
Exploration of bladder	1	...	1	...	...	1	...	...	...	...	...
Prostatectomy	2	2	...	...	...	...	...	...	...	...	2
Vasectomy	3	3	...	...	...	...	...	...	...	...	3
Nephropexy	3	...	3	...	...	...	1	2	...	...	...
Lumbar nephrotomy	7	3	4	...	...	1	2	...	1	3	...
" nephrolithotomy	2	2	...	...	...	...	1	1	...	...	...
" nephrectomy	3	1	2	...	...	...	...	1	2	...	...
Supra-pubic lithotomy	7	7	...	...	...	2	1	1	...	2	1

operations—continued.

Duration of residence after operation.										Result.				Remarks.
Dys. 1-4	Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. 12-18	Mts. 18-24	C.	R.	U.	D.	
1	5	1	4	...	...	...	...	...	...	...	6	...	5	Carcinoma of œsophagus 9; of stomach 1; of pharynx and larynx 1. Albert's method 7; Senn's 2; through rectus 2.
4	...	...	1	...	...	...	...	...	...	...	...	...	5	Carcinoma of cœcum 2; obstruction after strangulated hernia 3.
2	...	...	...	...	...	1	...	...	...	...	1	...	2	Ulcerative colitis 1; carcinoma of colon 2.
1	...	...	2	...	...	1	...	...	...	...	3	...	1	Carcinoma of colon 3; ulcerative colitis 1.
2	6	7	5	1	...	...	...	...	...	...	14	...	7	Imperforate rectum 4; carcinoma of rectum 17.
...	26	11	2	1	...	...	...	...	...	40	...	...	...	Suture of sphincter ani 1.
...	25	13	...	...	...	...	...	...	...	38	...	...	...
1	6	1	...	...	...	...	...	...	...	8	...	...	...
...	6	2	...	...	...	...	...	...	...	8	...	...	...
...	1	...	1	...	...	...	...	...	...	2	...	...	...
...	1	4	...	...	...	...	...	...	...	5	...	...	...	Whitehead 3; plastic 1. Excision of 5 inches of rectum 1. <i>Vide</i> Roy. Coll. of Surgeons' Museum for specimen.
2	7	...	...	...	...	...	...	...	...	9	...	...	...	Division of sphincter 7; excised 2.
7	13	1	...	...	...	...	...	...	...	21	...	...	...	Gonorrhœal warts 1; hæmorrhoids 1.
...	...	2	...	2	3	...	...	...	...	...	7	...	...
...	1	3	...	...	...	...	...	...	...	4	...	...	...	Ruptured urethra 3; wound 1. Re-suture 1.
1	1	...	...	1	...	...	...	...	...	1	1	...	1	Fractured pelvis 1.
...	...	1	4	...	...	...	...	...	...	5	...	...	...	Incision of extravasated urine 1.
1	2	...	...	...	...	...	...	...	...	3	...	...	...
...	...	8	8	1	...	...	...	...	...	14	2	...	1	Wheelhouse 7; removal of urethral calculus 1.
...	...	1	2	1	...	...	...	...	...	4	...	...	...
...	2	4	2	...	...	...	...	...	...	8	...	...	...
...	...	1	1	...	...	...	...	...	...	2	...	...	...
...	...	...	1	...	...	...	...	...	...	1	...	...	...
1	5	3	3	4	...	1	...	...	...	2	9	...	6	Epithelioma of bladder 2; sarcoma of bladder 1; epithelioma of uterus 1; stricture 1; tuberculous bladder 3; enlarged prostate 6.
...	...	1	...	...	...	...	...	...	...	1	...	...	...
...	...	1	1	1	...	...	...	...	...	1	1	...	...
...	1	1	...	1	...	...	...	...	...	...	3	...	...
...	...	...	3	...	...	...	...	...	...	3	...	...	...	Lumbar 3.
...	...	4	2	1	...	...	...	...	...	4	2	...	1	Nephralgia 4; pyonephrosis 2; tuberculous kidney 1.
...	...	1	1	...	...	...	...	...	...	2	...	...	...
1	...	1	1	...	...	...	...	...	...	2	...	...	1	Pyonephrosis 1; tuberculous kidney 1; renal calculi and hydronephrosis 1.
...	...	4	3	...	...	...	...	...	...	6	...	...	1	

TABLE III.—*Surgical.*

SURGICAL OPERATIONS.	Total.	Sex.		Age.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60
GENITO-URINARY SYSTEM—continued.											
Litholapaxy	6	6	...	1	...	...	1	...	2	2	...
Extraction of urethral calculus	2	2	...	...	...	1	...	1	...	...	...
For undescended testis	13	13	...	...	1	9	3	...	...	...	...
Scraping tuberculous testis	1	1	...	...	...	...	...	1	...	...	...
Castration	6	6	...	...	...	...	1	2	3	...	...
Radical cure of hydrocele	9	9	...	1	...	2	4	...	2	...	...
Tapping of hydrocele	1	1	...	...	...	...	...	...	...	1	...
Excision of hydrocele of cord	6	6	...	1	1	3	...	1	...	...	...
Incision of hydrocele of cord	2	2	...	1	...	1	...	...	...	...	...
Excision of hydrocele of hernial sac	1	1	...	...	...	...	1	...	...	...	...
Incision of hæmatocele	2	2	...	...	...	...	...	...	...	...	2
Ovariectomy	1	...	1	...	...	...	...	1	...	...	...
Excision of chronic interstitial mastitis	11	...	11	...	...	...	1	3	7	...	...
Excision of galactocoele	1	...	1	...	...	...	1	...	...	...	...
Suture of ruptured bladder	1	1	...	...	...	...	...	...	...	...	1
VASCULAR SYSTEM.											
Ligation of common internal and external carotid arteries	1	1	...	...	...	...	...	...	...	1	...
„ of external carotid	1	1	...	...	...	...	...	...	...	1	...
„ of common femoral	1	1	...	...	...	...	...	...	...	1	...
„ of ulnar	1	1	...	...	...	...	...	1	...	...	...
Excision of radial aneurism	1	1	...	...	...	1	...	...	...	...	...
Ligation of internal jugular vein	3	1	2	...	2	...	1	...	...	...	...
Excision of varicose veins	90	61	29	...	...	24	46	14	5	1	...
„ of varicocele	82	82	...	...	...	45	33	3	1	...	...
Subcutaneous ligature of varicocele	2	2	...	...	...	2	...	...	...	...	...
LYMPHATIC SYSTEM.											
Excision of inflamed glands	10	6	4	1	...	...	7	1	1	...	...
„ of tuberculous glands	90	35	55	3	12	27	30	12	4	...	2
THYROID BODY.											
Excision of cyst	2	...	2	...	...	...	...	1	1	...	...
„ of adenoma	4	1	3	...	...	1	2	...	...	1	...
„ of part of gland	5	...	5	...	...	2	...	1	2	...	...
OSSEOUS SYSTEM.											
Excision of rib	6	2	4	...	...	1	3	...	...	2	...
Exploration of femur	5	3	2	...	1	1	2	...	...	...	1
„ of tibia	3	1	2	...	...	1	1	...	1	...	...
„ of radius	1	1	...	...	...	...	1	...	...	...	...
Linear osteotomy	4	2	2	...	...	1	3	...	...	...	...

operations—continued.

Duration of residence after operation.								Result.				Remarks.
Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4-5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12					
1	3	1	...	...	...	...	...	5	...	...	1	
1	1	...	...	...	...	...	...	2	...	...	...
5	8	...	...	...	...	...	...	13	...	...	...	Castration 3; excision of varicose veins and varicocele 1.
...	1	...	...	...	...	...	...	...	1	...	...
2	3	1	...	...	...	...	...	6	...	...	...	Tuberculous testis 5; syphilitic 1.
6	3	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...
6	...	...	...	...	...	...	...	6	...	...	...	Suture of ring 2.
1	1	...	...	...	...	...	...	2	...	...	...	Suppurating 1.
...	1	...	...	...	...	...	...	1	...	...	...
...	1	1	...	...	...	...	...	2	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...
...	1	1	...	...	...	...	...	...	1	...	...	For recurrent scirrhus of breast.
6	4	...	...	...	...	...	...	11	...	...	...
1	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1	
...	1	...	...	...	...	...	...	...	1	...	...	For pulsating proptosis.
...	1	...	...	...	...	...	...	1	...	...	...	Secondary hæmorrhage after excision of tongue.
...	...	1	...	...	...	...	...	1	...	...	...	Popliteal aneurism.
1	...	...	...	...	...	...	...	1	...	...	...	Hæmorrhage.
1	...	...	...	...	...	...	...	1	...	...	...	Traumatic.
1	1	1	...	...	...	...	...	1	...	1	1	Lateral sinus pyæmia 2; mastoid abscess 1.
...	...	...	...	...	...	...	...	...	...	...	...	"At parent's request" 1.
52	37	1	...	...	...	...	...	90	...	...	...
69	12	1	...	...	...	...	...	82	...	...	...	Whitehead 1; hydrocele 3; varicose veins 1.
2	...	...	...	...	...	...	...	2	...	...	...
...	
3	6	1	...	...	...	...	...	10	...	...	...	Erysipelas 1. <i>Vide</i> Special Table II.
62	20	1	1	...	...	...	...	71	18	...	1	
...	
2	...	...	...	...	...	...	...	2	...	...	...
4	...	...	...	...	...	...	...	4	...	...	...
...	3	2	...	...	...	...	...	3	2	...	...	Isthmus 1; lobe 3; isthmus and lobe 1.
...	
2	3	1	...	...	...	...	...	4	2	...	...
...	2	1	2	...	...	...	...	1	4	...	...
1	1	...	...	...	...	...	...	2	1	...	...	Abscess 1; osteitis 1.
1	...	...	...	...	...	...	...	1	...	...	...	Abscess.
...	3	1	...	...	...	...	...	3	1	...	...	Tibia 4.

TABLE III.—*Surgical*

SURGICAL OPERATIONS.	Total.	Sex.		Age.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+6
OSSEOUS SYSTEM—continued.											
Scraping for caries of—											
Calvarium	2	2	...	2	...	...	...	...	...	...	...
Zygoma	1	...	1	...	...	...	1	...	...	...	...
Humerus	10	6	4	4	3	1	1	...	1	...	...
Metacarpus	2	...	2	...	...	1	...	...	1	...	...
Sternum	5	5	...	1	3	...	...	...	...	1	...
Rib	2	2	...	1	...	1	...	...	...	...	...
Pelvis	21	14	7	...	6	2	13	...	...	...	...
Femur	8	2	6	1	2	3	1	1	...	...	...
Tibia	3	1	2	...	...	...	2	1	...	...	...
Tarsus	11	4	7	5	2	1	3	...	...	...	...
Metatarsus	3	...	3	...	...	1	...	2	...	...	...
Phalanx	1	...	1	1	...	...	...	...	...	...	...
Removal of necrosed bone from—											
Nasal bones	2	...	2	...	...	2	...	...	...	...	...
Inferior maxilla	7	4	3	...	...	1	4	1	...	1	...
Scapula	3	2	1	...	...	1	...	1	...	...	...
Humerus	2	...	2	...	...	2	...	...	...	...	...
Radius	1	1	...	...	...	...	1	...	...	...	...
Pelvis	3	2	1	...	...	1	1	...	1	...	...
Femur	8	5	3	...	1	3	2	1	...	...	...
Tibia	21	18	3	4	1	12	1	...	3	...	...
Tarsus	1	1	...	...	1	...	...	...	...	...	...
Metatarsus	2	...	2	...	1	...	1	...	...	...	...
Metacarpal	1	...	1	...	...	1	...	...	...	...	...
ARTICULAR SYSTEM.											
Shoulder—Excision	2	1	1	...	...	...	1	...	...	1	...
Arthrotomy	1	...	1	...	...	...	1	...	...	...	...
Elbow—Excision	1	...	1	...	...	...	1	...	...	...	...
Arthrectomy	3	2	1	1	2	...	...	...	...	...	...
Arthrotomy	5	4	1	...	2	2	1	...	...	...	...
Wrist—Arthrectomy	1	1	...	...	...	...	1	...	...	...	...
Hip—Excision	12	10	2	2	6	3	...	1	...	...	...
Arthrectomy	4	4	...	2	1	1	...	...	...	...	...
Arthrotomy	4	3	1	...	1	3	...	...	...	...	...
Knee—Excision	9	4	5	...	...	3	5	1	...	...	...
Arthrotomy	10	6	4	1	1	3	3	1	1	...	...
Extraction of loose body	1	...	1	...	...	...	...	...	1	...	...
Excision of displaced semilunar cartilage	5	5	...	...	...	...	3	2	...	...	...
Suture of do. do.	2	2	...	...	...	...	1	...	...	1	...
Ankle—Excision	3	2	1	...	...	3	...	...	...	...	...
Arthrectomy	3	1	2	...	1	1	...	1	...	...	...

rations—continued.

Duration of residence after operation.								Result.				Remarks.
Dys. 6-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
...	2	2	Scapula 1.
1	...	...	...	...	...	...	...	1	...	...	...
4	4	...	...	...	...	...	...	1	9	...	...
1	1	...	...	...	...	...	...	1	1	...	...
3	1	1	...	...	...	...	...	1	4	...	...
2	2	Readmission 1.
1	7	7	5	...	...	...	...	1	19	...	1
2	3	1	...	1	...	...	...	2	6	...	...
...	3	1	2	Tuberculous glands of neck.
5	4	1	...	...	...	...	...	1	10	...	...
1	1	1	...	...	...	...	...	...	3	...	...
...	1	1	Superior maxilla 1.
1	1	...	...	...	...	...	...	1	1	...	...
...	3	...	...	...	...	...	...	4	3	...	...
2	1	...	...	...	...	...	...	1	2	...	...
1	1	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	1	...	...
1	1	1	...	...	...	...	...	2	1	...	...
1	5	2	...	...	...	...	...	7	1	...	...
4	7	5	5	...	...	...	...	6	15	...	...
...	...	1	...	...	...	...	...	1	...	...	...
1	1	2	Tuberculous 1; fracture dislocation 1.
...	...	...	...	...	...	...	...	1	...	...	...
...	1	1	...	...	...	...	...	2	...	...	...
1	...	...	...	...	...	...	...	...	1	...	...
...	1	...	...	...	...	...	...	1	...	...	...
2	...	1	...	...	...	...	...	...	2	...	1
...	2	3	...	...	...	...	...	...	5	...	...
...	1	...	...	...	...	...	...	...	1	...	...
...	...	8	4	...	...	...	...	6	6	...	...
2	...	1	1	4	Tubercle 4. Tubercle 8; infantile paralysis 1. Tubercle 2; septic arthritis 3; gonorrhœal 2; puerperal 1.
...	1	3	...	...	...	...	...	1	3	...	...
...	1	7	1	...	...	...	...	8	1	...	...
...	4	2	4	...	...	...	...	8	2	...	...
1	1	Internal in all.
1	3	1	...	...	...	...	...	5	...	...	...
...	1	1	2	Anterior incision 2; multiple incisions 1. Tubercle 3.
...	...	1	1	1	...	...	...	1	2	...	...
...	1	1	...	1	3	

TABLE III.—Surgical

SURGICAL OPERATIONS.	Total.	Sex.		Age.							
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60
ARTICULAR SYSTEM—continued.											
Ankle—Arthrotomy	3	3	...	...	...	3	...	..	...	...	...
Sacro-iliac—Arthrotomy	1	1	...	...	...	...	1	...	...	...	...
Metatarso-phalangeal—Arthrectomy	1	...	1	...	...	...	1	...	...	...	...
Excision	2	...	2	...	...	...	1	...	...	1	...
Phalangeal—Excision	21	13	8	...	...	17	4	...	...	...	...
Passive movement	13	7	6	...	...	...	7	4	1	...	1
LOCOMOTOR SYSTEM—Various.											
Excision of bursæ and ganglion	18	3	15	...	...	5	7	2	3	...	1
„ of teno-synovitis	3	3	...	...	...	1	1	...	1	...	...
Scraping of teno-synovitis	1	1	...	...	1	...	...	...	...	...	...
Amputation for disease—											
Hip	1	1	...	...	...	...	...	1	...	...	...
Thigh	20	11	9	...	1	1	1	3	...	7	7
Leg	5	4	1	...	...	1	1	...	1	2	...
Ankle	1	1	...	...	...	...	...	...	...	1	...
Syme	3	2	1	...	...	1	...	...	...	1	1
Forearm	1	...	1	...	...	...	...	...	...	1	...
Wrist	1	1	...	...	...	...	...	1	...	...	...
Digits	9	8	1	...	...	2	3	1	2	1	...
Phalanges	1	1	...	...	...	...	...	...	1	...	...
Primary amputation—											
Elbow	1	1	...	...	...	...	...	1	...	...	...
Digits	7	5	2	1	...	4	...	1	...	1	...
Thigh	2	1	1	1	1	...	...	...	...	...	...
Leg	1	1	...	...	...	...	...	...	1	...	...
Secondary amputation—											
Arm	1	1	...	...	...	1	...	...	...	...	...
Forearm	1	1	...	...	...	...	...	...	...	1	...
Digits	6	4	2	1	...	...	...	...	1	4	...
Phalanges	2	1	1	...	...	2	...	...	...	...	...
Thigh	2	1	1	...	1	...	...	...	...	...	...
Through knee	1	...	1	1	...	...	...	...	...	...	...
Leg	1	1	...	...	...	1	...	...	...	...	...
Wiring of patella	14	13	1	...	...	1	3	3	4	2	...
„ of olecranon	7	7	...	...	...	2	1	2	1	...	...
„ of tibia	2	2	...	...	...	...	...	...	1	1	...
„ of radius	1	1	...	...	...	...	...	1	...	...	...
„ of clavicle	1	...	1	...	...	...	1	...	...	...	...
„ of humerus	3	2	1	...	...	1	...	1	1	...	...

Operations—continued.

Duration of residence after operation.									Result.				Remarks.
Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4-5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12						
2	...	1	...	...	...	...	...	...	3	...	...	...	Same case, tubercle.
...	...	...	1	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...	...
1	1	...	...	...	...	...	...	...	2	...	...	...
15	1	...	...	...	...	...	...	...	21	...	...	...	Hammer-toe 20.
3	5	2	...	...	...	...	...	...	6	7	...	...
14	1	1	...	...	...	...	...	...	18	...	...	...
...	...	...	...	...	...	...	...	...	3	...	...	...	Fingers 3; tuberculous 3; melon-seed bodies 1.
...	1	...	...	...	...	...	...	...	1	...	...	...	Tuberculous.
...	...	...	...	...	...	...	...	...	...	...	...	1	Furieux Jordan. Tuberculous. P.M.—Lardaceous disease.
2	9	8	1	...	...	...	...	...	17	1	...	2	Lower third 17; middle third 3. Double 1.
...	...	5	...	...	...	...	...	...	5	...	...	...	Lower third 3; middle third 1; upper third 1. Tuberculous ankle 1; gangrene of foot 1; infantile paralysis 1.
1	...	...	...	...	...	...	...	...	1	...	...	...
...	1	2	...	...	...	...	...	...	2	1	...	...	Tuberculous tarsus 1; ankle 1.
...	1	...	...	...	...	...	...	...	1	...	...	...	Upper third; cellulitis.
...	...	1	...	...	...	...	...	...	1	...	...	...	Septic arthritis.
6	2	1	...	...	...	...	...	...	9	...	...	...	Fingers 8, toes 1.
1	...	...	...	...	...	...	...	...	1	...	...	...
...	1	...	...	...	...	...	...	...	1	...	...	...
3	2	1	...	...	...	...	...	...	7	...	...	...	Suture of tendons 1. Toe 1.
...	2	...	...	...	...	...	...	...	1	...	...	1	Lower third 2.
...	...	...	1	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1	Upper third.
...	1	...	...	...	...	...	...	...	1	...	...	...	Upper third.
2	3	...	...	...	...	...	...	...	6	...	...	...
...	1	1	...	...	...	...	...	...	2	...	...	...	Hallux 1.
...	...	1	...	...	...	...	...	...	1	...	...	1	Lower third 1; middle third 1.
1	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	1	...	...	...	...	...	...	1	...	...	...	Upper third 1.
...	11	1	2	...	...	...	...	...	14	...	...	...	Refracture 1; suppuration 1.
4	1	1	...	...	...	...	...	...	7	...	...	...	Ulnar nerve freed from callus 1.
...	1	...	...	...	1	...	...	...	2	...	...	...	Compound fracture of tibia and fibula 2; screwed 1.
1	...	...	...	...	...	...	...	...	1	...	...	...	Ununited fracture.
...	...	1	...	...	...	...	...	...	1	...	...	...	Ununited fracture.
...	1	1	1	...	...	...	...	...	3	...	...	...	Pegged 1; screwed 1. Compound fracture 1; separation of upper epiphysis 1; fracture dislocation 1.

TABLE III.—*Surgical.*

SURGICAL OPERATIONS.	Total.	Sex.		Age.									
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60		
LOCOMOTOR SYSTEM— <i>Various—contd.</i>													
Reduction of dislocations—													
Humerus	10	3	7	...	...	...	...	1	1	2	6		
Hip	4	3	1	...	...	1	1	1	1	...	...
Patella	1	1	...	...	...	...	1	...	...	...	...
Phalanges	4	4	...	...	1	1	...	...	...	1	1		
Suture of tendons	12	9	3	...	...	5	4	3	...	...	...
NERVOUS SYSTEM.													
Removal of portion of skull	4	2	2	...	1	...	2	1	...	...	...
Cerebral abscess	5	5	...	...	...	...	...	5	...	...	...
Exploration of nerves	2	1	1	...	...	1	1	...	...	...	...
Resection and suture of nerves	2	2	...	...	...	1	...	1	...	...	...
Suture of nerves	8	6	2	...	...	1	3	1	2	1	...		
Excision of bulbous nerves	1	1	...	...	...	...	...	...	...	1	...		
Painful scar	2	2	...	...	...	...	...	...	2	...	...
Neurotomy	3	3	...	...	...	...	1	...	2	...	...
Neurectomy	1	1	...	...	...	...	...	...	...	...	1		
Stretching of nerves	1	1	...	...	...	...	1	...	...	...	...
RESPIRATORY SYSTEM.													
Empyema	22	15	7	8	4	3	...	4	2	1	...		
Aspiration of pleura	3	...	3	...	...	1	1	...	...	1	...		
Tracheotomy	6	6	...	1	...	...	1	...	1	2	1		
Laryngotomy	1	...	1	...	...	...	...	1	...	...	...
Thyrotomy	1	1	...	...	...	...	...	...	...	...	1		
Drainage of maxillary antrum	11	4	7	...	...	2	9	...	...	...	...
Turbinectomy	4	1	3	...	...	1	3	...	...	...	...
Scraping for tuberculous rhinitis	2	...	2	1	...	1	...	...	...	...	...
AUDITORY SYSTEM.													
Extraction of foreign body	1	...	1	1	...	...	...	...	...	...	...
Aural polyp	3	1	2	...	...	2	1	...	...	...	...
Removal of bone from mastoid	44	14	30	4	5	20	11	2	...	...	...
Exploration of temporo-sphenoidal lobe	6	5	1	...	...	2	1	2	...	...	...
" of cerebellum	3	1	2	...	...	...	3	...	...	...	...
DEFORMITIES.													
Osteotomy of femur, subtrochanteric	1	1	...	...	...	...	1	...	...	...	...
" " supra-condyloid	1	...	1	...	...	...	1	...	...	...	...
" " Macewen's	12	6	6	3	1	6	1	...	1	...	...

operations—continued.

Duration of residence after operation.										Result.				Remarks.
ys.	Dys.	Wks	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	Mts.	C.	R.	U.	D.	
4	5-13	2-4	1-2	2-4	4-6	6-9	9-12	+12						
7	1	1	1	...	...	...	...	...	7	3	...	...	...	4 weeks' standing 1; 6 weeks' 2; 3 months' 1. Failure of reduction 4.
...	...	4	...	...	...	...	...	...	4	...	...	...	...	Dorsal 3; thyroid 1.
...	1	...	...	...	...	...	...	...	1	...	...	...	...	Edgeways.
1	2	1	...	...	...	...	...	...	4	...	...	...	...	Compound 2. Reduction after incision 2.
5	7	...	...	...	...	...	...	...	11	...	1	...	...	Attempted suture 1.
...	...	1	2	1	...	...	...	...	4	...	...	...	...	Epilepsy 3; hemiplegia 1.
1	...	...	1	3	...	...	...	...	...	4	...	...	1	Frontal lobe, bronchiectasis. Same case.
1	1	...	...	...	...	...	...	...	2	...	...	...	...	Median and ulnar 1; ulnar 1.
...	...	2	...	...	...	...	...	...	2	...	...	...	...	Median 2.
...	6	1	1	...	...	...	...	...	7	1	...	...	...	Suture of tendons 8. Ulnar 5; median 5.
...	1	...	...	...	...	...	...	...	1	...	...	...	...
1	1	...	...	...	...	...	...	...	2	...	...	...	...
...	2	...	1	...	...	...	...	...	2	1	...	...	...	Facial neuralgia 1; spasmodic torticollis 1; epithelioma of tongue 1.
...	...	...	...	1	...	...	...	...	1	...	...	...	...	Infra-orbital nerve.
...	...	...	1	...	...	...	...	...	1	...	...	...	...	Sciatic.
1	2	6	13	...	...	...	...	...	19	...	...	...	3	Resection of rib 21.
...	1	1	...	...	1	...	...	...	1	...	...	...	2	
...	1	3	2	...	...	...	...	...	...	6	...	...	...
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Syphilitic laryngitis.
...	...	1	...	...	...	...	...	...	...	1	...	...	...	Cicatricial stenosis after cut throat.
2	9	...	...	...	...	...	...	...	8	3	...	...	...
2	2	...	...	...	...	...	...	...	3	1	...	...	...
1	1	...	...	...	...	...	...	...	...	2	...	...	...
...	
...	1	...	...	...	...	...	...	...	1	...	...	...	...
2	1	...	...	...	...	...	...	...	3	...	...	...	...
5	20	14	5	...	...	...	...	...	9	33	...	2	...	Stacke 19. Ligature of jugular 1.
2	1	...	3	...	...	...	...	...	2	1	...	3	...	Abscess found 3; present and not found 1.
2	...	...	1	...	...	...	...	...	...	1	...	2	...	Abscess present and not found 1.
...	
...	...	...	1	...	...	...	...	...	1	...	...	...	...	Ankylosis of hip.
...	...	...	1	...	...	...	...	...	1	...	...	...	...
...	...	7	5	...	...	...	...	...	11	1	...	...	...	Double 1; of tibia and fibula 5; contracted knee 1.

TABLE III.—*Surgical*

SURGICAL OPERATIONS.	Total.	Sex.		Age.								
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	
DEFORMITIES—continued.												
Osteotomy of femur, shaft	2	1	1	...	...	2	...	...	...	...	...
" " cuneiform	1	...	1	...	...	1	...	...	...	...	...
" of tibia and fibula	8	5	3	1	3	3	...	1	...	...	...
" of tibia	2	2	...	...	...	2	...	...	...	...	...
" of astragalus	1	1	...	...	...	1	...	...	...	...	...
Plastic	18	9	9	1	7	4	5	...	1	...	...
For Dupuytren's contraction	6	6	...	...	...	...	...	...	1	3	2
Tenotomy for pes planus	1	1	...	...	...	1	...	...	...	...	...
" for infantile paralysis	2	1	1	...	...	2	...	...	...	...	...
" for talipes	15	11	4	7	4	4	...	...	...	...	...
" for pes cavus	12	7	5	...	2	8	2	...	...	...	...
" torticollis	5	3	2	1	3	1	...	...	...	...	...
Buchanan's operation	5	5	...	5	...	...	...	...	...	...	...
Tarsectomy	3	2	1	...	3	...	...	...	...	...	...
Partial astragalectomy	2	2	...	2	...	...	...	...	...	...	...
Hallux valgus	4	1	3	...	...	1	1	2	...	...	...
Wrenching for pes planus	6	4	2	...	...	5	...	1	...	...	...
Deviation of septum of nose	6	1	5	...	...	3	1	1	...	1	...
Perinæorrhaphy	1	...	1	...	...	1	...	...	...	...	...
Avulsion of nail	7	2	5	...	1	1	6	...	...	...	...
MALFORMATIONS.												
Single harelip	8	6	2	8	...	...	...	...	...	...	...
Cleft palate	19	4	15	11	3	5	...	...	...	...	...
Extroversion of bladder	5	5	...	...	4	1	...	...	...	...	...
Epispadias	1	1	...	...	...	1	...	...	...	...	...
Hypospadias	3	3	...	...	...	3	...	...	...	...	...
Webbed fingers	1	...	1	1	...	...	...	...	...	...	...
MISCELLANEOUS.												
Trephining and raising of depressed fracture of skull	1	1	...	...	...	...	...	...	1	...	...
Raising of depressed fracture of skull and removal of fragments	1	...	1	...	...	...	1	...	...	...	...
Scraping of sinuses	29	13	16	1	2	3	14	4	3	2	...	
Irrigation and suture of spinal abscess	21	15	6	3	5	8	4	1	...	...	...
" and drainage of spinal abscess	10	5	5	2	1	3	1	2	1	...	...
Laminectomy	1	...	1	...	...	1	...	...	...	...	...
Scraping of ulcer	3	2	1	...	...	...	...	1	...	1	1
Excision of ulcer	3	1	2	...	...	...	1	...	...	1	1
Scraping of lupus	15	1	14	3	...	2	7	2	1	...	...
Excision of lupus	36	9	27	...	1	11	22	1	1	...	...
Scraping of carbuncle	8	5	3	...	...	...	...	3	2	3	...

operations—continued.

Duration of residence after operation.								Result.				Remarks.
Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
...	...	...	2	...	...	...	...	1	1	...	...	Rachitic deformity.
...	...	1	1	...	...	...	...	2	...	...	...
3	3	2	...	...	...	...	...	8	...	...	...	Double 2, genu valgum 6, previous fracture 2.
...	...	1	1	...	...	...	...	2	...	...	...	Rachitic curvature 1, genu extorsum 1.
...	1	...	...	...	...	...	...	1	...	...	...	Previous fracture, pes planus.
5	8	4	1	...	...	...	...	8	10	...	...	Nose 7; lip 3; ear 1; wrist 1; fingers 6.
3	1	1	...	...	...	...	...	4	2	...	...
...	1	...	...	...	...	...	...	1	...	...	...
...	...	2	...	...	...	...	...	...	2	...	...	Hamstrings 2.
6	2	2	...	...	...	...	...	13	2	...	...	Equino-varus 8; varus 3; equinus 5.
6	2	1	...	...	...	...	...	8	4	...	...
1	1	3	...	...	...	...	...	4	1	...	...	Sterno-mastoid 5.
2	3	...	...	...	...	...	...	...	5	...	...
...	1	...	...	...	2	...	...	3	...	...	...	Equino-varus 2; previous tuberculous ankle 1.
...	1	1	...	...	...	...	...	2	...	...	...	Equino-varus.
...	2	2	...	...	...	...	...	4	...	...	...	Excision of metatarso-phalangeal joint.
3	1	...	...	...	...	...	...	...	6	...	...	Plaster-of-Paris splints.
4	1	...	...	...	...	...	...	6	...	...	...	Adenoids 1.
1	...	...	...	...	...	...	...	1	...	...	...
3	1	...	...	...	...	...	...	8	...	...	...	Ingrowing toe-nail 7; onychia 1.
6	...	...	...	...	...	...	...	8	...	...	...
7	9	3	...	...	...	...	...	8	9	2	...	
...	1	1	3	...	...	...	...	...	5	...	...
...	1	...	...	...	...	...	...	...	1	...	...
...	2	1	...	...	...	...	...	...	3	...	...
1	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...	Gunshot wound.
...	...	1	...	...	...	...	...	1	...	...	...	Gunshot wound.
10	8	3	2	...	3	...	...	15	14	...	...	Fatal cases : shock 1, myelitis 1.
4	6	4	5	1	...	...	...	...	19	...	2	
2	2	4	2	...	...	...	...	...	10	...	...
...	...	1	...	...	...	...	...	...	...	...	1	Caries of spine; paraplegia.
1	1	1	...	...	...	...	...	...	3	...	...
2	1	...	...	...	...	...	...	2	...	...	1	Fatal: pyæmia. <i>Vide</i> Special Table III.
6	3	2	...	1	...	...	...	6	9	...	...	Cautery 1.
18	9	6	2	...	...	...	...	21	15	...	...	Scarification 1; grafting 4; plastic 1.
3	4	1	...	...	...	...	...	8	...	...	...	Glycosuria 1.

operations—continued.

Duration of residence after operation.								Result.				Remarks.
Dys. 5-13	Wks 2-4	Mts. 1-2	Mts. 2-4	Mts. 4-6	Mts. 6-9	Mts. 9-12	Mts. +12	C.	R.	U.	D.	
13	11	9	1	2	33	2	...	1	Radius and ulna. Lip.
9	...	...	...	...	...	...	...	22	...	...	...
...	1	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	1	...	...	...
1	...	...	...	...	...	...	...	1	...	...	...
								1613	474	10	145	
								2242				

SUMMARY OF DISEASES.

GENERAL DISEASES.

ERYSIPELAS (admitted with the disease).

Males 22, females 25. C. 42, D. 5.

Situation.—Upper extremity 3; lower extremity 5; scalp 1; neck 1; scrotum 1; vulva 1; remainder face and scalp; cellululo-cutaneous 4.

Mode of entrance of micro-organism.—Wounds 8; abscess 4; ulcer 3; boil 2; sinus 1; burn 1; lupus 1; psoriasis 1.

Treatment.—Incisions 3; hot lotions or boracic powder in remainder.

Fatal cases.

1. E. C—, female, æt. 3 months. Congenital syphilis. Gumma of left arm, which broke few days before admission. Day before admission erysipelas arose, starting from edge of ulcer, and spreading to shoulder and forearm. Admitted with erysipelas of forearm and shoulder. Temperature subnormal. Pulse feeble. Eruption disappeared on 2nd day, but child became increasingly weak and died on 3rd day. P.M.—Recent pleurisy in lower half of right pleura; no effusion. Early left pleurisy. General purulent peritonitis. Gumma of liver.

2. E. F—, female, æt. 11 months. Abscess of neck incised 1 week before admission. Erysipelas of neck, face, and upper part of chest. Temp. 102°. Slight dyspnœa. Became suddenly worse on 2nd day, and death ensued in few hours. P.M.—Few areas of broncho-pneumonia, with collapse in both lower lobes.

3. R. McC—, female, æt. 11 weeks. Erysipelas of vulva arising 2 days before admission. On admission erysipelas of vulva. Temp. 103·2°. Erysipelas spread over abdomen and lower extremities, the temperature remaining between 103° and 105°. Slight jaundice on 9th day, with restlessness. Erysipelas then began to disappear, but jaundice increased. Retraction of head with irregularity of pupils noted on 11th day; hands were clenched. No fits. Death on 11th day. No P.M.

4. T. W—, male, æt. 56, carman. Admitted with a few weeks' history of ischio-rectal abscess, which burst 3 days before admission; later redness and swelling spread from opening over buttock. Sinus in ischio-rectal fossa with cellululo-

cutaneous erysipelas of buttock; very offensive discharge. Albuminuria and glycosuria. Sinus slit up on 3rd day, and opening made into buttock. Rigor with temperature of 106.8° followed operation. Boracic baths given daily. Wounds cleared slightly. Amount of urine decreased. Increasing feebleness with drowsiness. Death on 10th day. No P.M.

5. R. N—, male, æt. 4 months. Swelling of scrotum for 1 day. Prepuce slit up by doctor, thinking condition to be due to extravasation of urine. On examination, scrotum swollen, red and tense. Incisions made. Erysipelas spread to abdomen and thighs. Sudden death on 2nd day. P.M.—Thickening of scrotum and superficial layers of abdominal wall, very firm and whitish; exuding clear fluid on section. Cloudy swelling of kidneys. Patchy collapse of lungs.

Anthrax infection.—M. M—, female, æt. 13. Schoolgirl. Anthrax pustule of face. Two days before admission small red pimple appeared just below the angle of the mouth, which became surrounded by ring of vesicles. No pain in pustule. The method of infection could not be ascertained. On admission typical anthrax pustule, with small central slough the size of a pea situated below and just internal to the right angle of the mouth; from this there stretched an area of induration ending in the submaxillary glands, which were enlarged and tender. Pustule excised, the skin and subcutaneous tissue alone being removed. No antiseptics applied to raw surface. Wound sutured. Uninterrupted recovery. Discharged cured on 12th day. Cultures taken from the vesicles showed only cocci; sections of the pustule show typical anthrax bacilli.

Acute tetanus.—I. H. F—, male, æt. 23. Labourer. Six days before admission crushed middle finger of right hand between iron beams. Wound dressed by fellow-workman with embrocation. Day following accident general malaise and sore throat; patient took to his bed. Later he complained of pain in his limbs. On examination, strongly built man. Temp. 101.6° , with frequent painful spasms of muscles of back and of jaws. Dribbling of saliva. In interval of spasms muscles became quite relaxed. Contusion of middle finger of right hand, with pus under and around nail. 30 grs. each of Pot. Brom. and chloral given *per rectum* but returned. A similar dose given by mouth retained. 10 c.c. of antitetanic serum (obtained from British Institute of Preventive Medicine) injected at 4 p.m. Continuous spasm from 2.35 p.m. until 5.20 p.m. with intermittent spasms until 5.50 p.m., when chloroform was administered and the finger amputated at metacarpo-phalangeal joint. Ol. Ricini ʒiiss given by stomach-tube. At 11 p.m. a further 10 c.c. of serum was injected, and fed by nasal tube but vomited at once. 2nd day, slept at intervals after 12 o'clock. Four spasms between 6 a.m. and 8 a.m. Bowels well open. Has taken fluids well. Chloral gr. xxx given every four hours. Slept at intervals. 10 c.c. of serum given at 6 p.m. 3rd day, 13 spasms during the day, during which there is trismus with muscular rigidity; tongue bitten. An attack of coughing after every spasm. Three very severe spasms in afternoon induced by sudden noise of lift working. Has slept at intervals and takes fluids well. Chloral reduced to 15 gr. every four hours. 10 c.c. of serum (Pasteur) at 11 a.m. 4th day, cough continues. Five spasms during day less severe. Slept

11 hours, but was very restless for 3 hours. Temp. remains at 99°. Serum injected. 5th day, continued improvement; spasms fewer; cough continues, and is accompanied by muscular rigidity; tongue bitten; slight wandering delirium at night. Temp. lower. Serum repeated. 6th day, spasms less marked; 5 during day. Bromidia 5j given every 4 hours. Chloral and serum discontinued. Simple enema given with no result. 7th day, spasms increased; 15 during day; more severe; cough better. Temp. rose to 100·2°. 8th day, 9 spasms; slept better. 9th day, complains of feeling stiff all over; clenches teeth when speaking; unable to protrude tongue or to swallow semi-solids; spasms continue. 10th day, occasional slight spasm; restlessness during night; slept badly. Chloral hydrate 10 gr. replaced bromidia. Continuous improvement after this date. Tonic contraction of the muscles of the back and jaw gradually passed off, an occasional biting of the tongue being the only evidence of the spasms left. Took solid food on the 19th day. Discharged cured on 30th day. The tetanus bacillus was not discovered.

Fatal case.—Tetanus neonatorum. J. C—, male, æt. 12 days. Refused to take the breast 3 days after birth; the following day the “baby went stiff,” and spasms were noticed. On admission umbilicus apparently healthy. Spasms induced by the slightest stimulus. During the spasms the head is strongly retracted; the occipito-frontalis draws up the brow, and the jaws are tightly locked, producing a typical risus sardonicus. Arms are held by the side of the body; the forearm is extended and pronated, with fingers tightly clenched enclosing the flexed thumb. Thighs are extended and adducted, the legs being crossed. The foot extended and inverted, with the toes flexed. Swallowing is impossible, any attempt inducing the spasms. Temp. rose to 102·2°, and afterwards fell to subnormal. The child was fed nasally and *per rectum* while under chloroform, bromide and chloral being given as well. Spasms became more frequent, and death ensued on 3rd day. P.M.—Viscera congested, particularly the kidneys; no other sign of disease.

Carcinomata.

Spheroidal-celled.—*Breast.*—Females 40; C. 32, R. 3, U. 4, D. 1. Married 31, of whom 27 had borne children. Family history of tumour in 11, of tubercle 6. Atrophic 1; encephaloid 1; colloid 1. Shortest history 14 days; longest history 8 years.

Treatment.—Amputation of breast and clearance of axilla 33; amputation of breast alone 3; excision of growth and clearance of axilla 1 (axillary-mammary carcinoma); pectorals divided 1; large part of pectorals removed 3; Thiersch grafts 3; infusion 2; operation not advised 4.

Complications.—Ulceration 4; malignant pleurisy 2; chronic interstitial mastitis of opposite breast 1; Paget's eczema of nipple 1.

Fatal case.—F. C—, female, æt. 58. Large growth with ulceration. Glands involved. Amputation of breast and clearance of axilla. Not much shock after operation. Failed on 2nd day. Infusion of 3 pints of normal saline. P.M.—Body fat; left apical adhesions; œdema and congestion of lung bases; liver cirrhotic; no secondary deposits.

Recurrent in scar.—Females 12. R. 12. Interval since operation: 1 month 2;

2 months 1; 3 months 2; 6 months 1; 13 months 1; 15 months 2; 20 months 1; 24 months 1. Removal 12. Double ovariectomy and thyroid 1.

Recurrent in glands.—Females 12. C. 1, R. 11. Interval since operation: 2 months 1; 4 months 1; 5 months 1; 7 months 1; 23 months 2; 27 months 1; 4 years 2. 3rd recurrence 1; 4th 1; 5th 1.

Treatment.—Removal 10; with amputation at shoulder 1; supra-clavicular glands removed in 2; wound of thoracic duct in 1, with escape of chyle for 20 days.

Carcinoma of antrum.—M. 1, F. 1. R. 1, U. 1.

Treatment.—Excision of superior maxilla 1.

R. H—, male, æt. 57. Stationer. Family history good. No history of nasal disease. Four months before admission "watering of the left eye," more especially at the close of the day's work, and gradually increasing; œdema of the upper eyelid appeared 4 days ago. Discharge from nose for 3 months, occasionally mixed with blood; stuffy feeling on blowing nose. Dull aching pain in cheek for one month, with occasional pain referred to forehead. Swelling of cheek at junction of superior maxilla and nasal bones appeared 2 months ago, and has gradually increased. On examination, firm swelling over front of left upper jaw, extending from nasal bones to malar, and from lower margin of orbit to alveolar process; skin not adherent. Roof of mouth slightly depressed, with firm swelling between alveolar process and lip. Left nasal obstruction, with deviation of outer wall of cavity inwards. Slight œdema of upper eyelid, with little proptosis; movements of eyeball limited in all directions except outwards. Eye usually deviates outwards, but can be brought into line. No optic neuritis. Occasionally sees double. Excision of upper jaw on 11th day; growth had invaded body of sphenoid and ethmoid, and could not be completely removed; small gland removed from neck. Growth soft and friable. Progress satisfactory. Discharged on 35th day. Readmitted 7 weeks later. One week after discharge small swelling appeared just outside external canthus, which has rapidly increased. On examination, two small, rounded swellings size of hazel nut attached to the external orbital process of the frontal bone; skin not adherent. Small sinus at inner canthus. Treated by Coley's fluid, 1 minim every two days; there was a definite reaction after each injection, but the swellings continued to increase. Discharged unrelieved on the 20th day.

Carcinoma of face arising in cutaneous glands.—S. T—, male, æt. 53. Baker. Injury to face 4 years ago, which has never really healed but gradually spread. On examination, rough ring of prominent growth seated at the outer canthus; edges rough and everted, shading off into the base of the ulcer, which is dry and granular. Above the ulcer is an oval cicatrix, extending into the temporal region for $1\frac{1}{2}$ inches; the lower portion is more vascular than the upper. Growth involves the outer canthus, extends over the zygoma, and a short distance into the cheek. No attachment to deep structures or enlargement of glands. It closely resembled an ordinary rodent ulcer. Excision of ulcer on 3rd day, a skin flap from the forehead and one from the cheek being turned down to fill the raw surface left. Pathologist reported that the growth was a spheroidal-celled carcinoma, which had probably arisen in the cutaneous glands. Discharged cured on 21st day.

Carcinoma of pancreas.—T. G—, male, æt. 45. Farrier. Two years before admission pain in left testicle with appearance of varicocele, which gradually increased. Seven weeks ago persistent vomiting and retching, with abdominal pain; emaciation. Vomit in large quantities. On examination, great emaciation; stomach dilated with tumour, felt in middle line just above umbilicus. Increasing feebleness. Death on 9th day. P.M.—Large mass of growth in region of pancreas, infiltrating the mesentery; the pylorus was adherent to it at its lower margin, and also the colon in two places. On section the growth was firm, white and fibrous. Nutmeg liver. Chronic venous congestion of spleen. Lungs very emphysematous. Microscopically, growth consisted almost entirely of fibrous tissue, with numerous areas of small-celled infiltration, and here and there alveoli lined with cubical carcinomatous cells.

Columnar.

Duct carcinoma of breast.—A. M—, female, æt. 47. Single. Small lump in left breast, which persisted for few years and then disappeared. Four months before admission noticed swelling in left breast, which has gradually increased in size. Breast felt heavy. Occasional pain, induced by pressure. No discharge from nipple. On examination, fluctuating swelling in left breast, just above and to the inner side of the nipple. Size of tennis ball. Freely moveable on deeper parts. Skin stretched over tumour, but not adherent. No enlargement of glands. No discharge can be squeezed from the nipple. Incision into cyst; amputation of breast. Cyst size of small orange, containing dark yellow clear fluid. On upper wall of cyst was a papilliferous growth of superficial area the size of a sixpence, and distinctly infiltrating. Microscopically it was a columnar-celled carcinoma, arising in a duct cyst. Discharged cured on 37th day.

Carcinoma of hepatic flexure; excision of growth.—E. W. V—, female, æt. 58. Abdominal pain for two months with chronic obstruction, becoming acute a few days before admission on medical side. No passage of blood *per rectum*. On examination, abdomen uniformly distended. Peristaltic action of gut visible. No tumour felt. Median cæliotomy below umbilicus, later prolonged upwards; growth felt at hepatic flexure, brought outside the abdomen and fixed there by sutures; colotomy performed with Paul's tube in bowel just above obstruction.

Progress satisfactory. Transferred to surgical side. Operation 14 days after colotomy; colotomy opening sutured, and gut disinfected; growth freed from abdominal wall. No further portion of ascending colon could be withdrawn outside the abdomen. Incision through right semilunar line, then connected with previous wound by transverse cut through rectus muscle. Growth excised; no infiltration of mesentery. Divided ends of bowel closed by continuous stitch for mucosa and layer of Lembert sutures. Lateral anastomosis between upper end of ascending and transverse colon; difficulty in approximation of two portions of gut. Progress satisfactory, with exception of rise of temperature to 99.8° and pulse to 120 on second day; slight abdominal distension. Rectal feeding for 2 days. Discharged cured on 28th day.

Carcinoma of cæcum; excision of growth; lateral anastomosis.—J. S—, male, æt. 43. Harnessmaker. Attacks of abdominal pain, with vomiting and diarrhoea at intervals for 5 months. On examination, large hard nodular tumour

in right iliac region; freely moveable. No gurgling felt. Incision in right semilunar line, afterwards enlarged transversely to left; growth excised with portion of ileum and colon; Paul's tube inserted into both ends of bowel. The growth involved the whole of cæcum; the ileo-cæcal valve was so much infiltrated with growth that a very small opening was left. Many glands were involved, and the growth had penetrated the peritoneal coat of the bowel at one spot; it was also adherent to the anterior and lateral walls of the abdomen (portions of which were excised); water passed through the constriction in a small dribble under considerable pressure. Microscopically it was a columnar-celled carcinoma. Progress satisfactory. Lateral anastomosis between the transverse colon and the lower end of the ileum by Halstead's method through an incision above the artificial anus on the 39th day after excision of growth. Some amount of fæces were passed *per rectum*, but the greater portion still escaped from the artificial anus. More fæces passed *per rectum* shortly after the anastomosis; amount gradually diminished until flatus was only passed, when anus was partially obstructed by gauze plug. Median cœliotomy on 93rd day; anastomosis explored and found satisfactory; portion of small gut beyond anastomosis excised, and end closed after inversion by single row of Lembert sutures. Fæces continued to be discharged from opening of colon. Portion of colon with artificial anus excised on 108th day; gut closed after invagination by Lembert sutures. Stool by rectum 4th day after operation. Progress very satisfactory. Bowels acted naturally, and general condition much improved. Discharged on 137th day. Readmitted 10 weeks later with obstruction of 14 days' duration. Cœliotomy in right semilunar line; secondary peritoneal growths. Enterotomy with Paul's tube. Obstruction relieved. Attack of facial erysipelas on 17th day. Vomiting; gradual emaciation. Death on 37th day. P.M.—Large mass of whitish growth surrounded the artificial anus. Anastomosis lay in the hypogastrium and was satisfactory. Small intestine in lower two thirds hypertrophied. The bowel immediately beyond the anastomosis passed into the mass of growth above mentioned. Colon and rectum collapsed and thinned. Multiple peritoneal growths, which had matted the bowel and extensively invaded the right abdominal wall. Hypostatic pneumonia at right base, with few feeble adhesions. Other organs wasted.

Carcinoma of descending colon; resection and lateral anastomosis.—H. T—, female, æt. 29. Attack of acute obstruction 7 weeks before admission, relieved on the 4th day by cœliotomy followed by colotomy in the upper part of the descending colon. Cellulitis of the abdominal wall followed, which subsided before admission to the hospital 7 weeks after the onset of symptoms. The colotomy opening acted well, and an occasional stool was passed *per anum*. On examination there was a colotomy opening in the left hypochondrium, but nothing could be felt in the abdomen. Cœliotomy was performed on the 4th day through the left semilunar line, the incision extending above and below the artificial anus. The gut was freed from the abdominal wall and the growth brought outside, and $4\frac{1}{2}$ inches of gut was resected; the growth involved an inch of this portion. Divided ends of the colon were inverted and closed by a row of Lembert sutures, and lateral anastomosis was then performed between these two portions of the gut. The temperature rose to 102° on the 2nd day after operation, and pulse to 140. The bowels were opened on the 6th day. Progress was

interrupted by an attack of pneumonia on the 12th day after operation. Discharged cured on the 26th day.

Carcinoma of stomach.—Males 3, females 3. R. 3, U. 1, D. 2. Pylorus 1.

Treatment.—Cœliotomy 5; gastrotomy 1.

Fatal cases.

1. H. W—, male, æt. 30. Cabinetmaker. Vomiting and flatulence after meals for 8 months. Rapid emaciation. No hæmatemesis. On examination, abdomen rigid; large tumour in epigastric region, moving with respiration and bulging anterior abdominal wall forwards; stomach dilated. Rectal feeding did not relieve vomiting. Cœliotomy above umbilicus; growth infiltrated stomach wall and omentum. Gradual exhaustion. Death on 4th day. P.M.—Stomach and transverse colon bound together by mass of growth, secondary to a primary deposit at the pylorus. Great deposit of new growth at the pylorus, where it reached its maximum and abruptly terminated, but infiltrated the stomach wall for a considerable distance; no ulceration. Pylorus just admitted tip of little finger. Growth, semi-translucent on section, invaded muscular and serous coats. Glands involved in portal fissure. No deposits in liver. Kidney small and hyperæmic. Spleen atrophied. Early emphysema.

2. M. A. P—, female, æt. 42. Married. Three months' history of pain after food and vomiting; no hæmatemesis. Emaciation. On examination (on medical side), resistance and tenderness in epigastrium; hard mass felt descending beneath left costal margin on deep respiration, and second mass just above umbilicus, with transmitted aortic pulsation. Treated by rectal feeding; vomiting and pain relieved. Melæna. Transferred to surgical side. Cœliotomy through left rectus above umbilicus; most of the anterior wall and lesser curvature of stomach infiltrated with growth. Stomach incised and sutured to abdominal wall. Much bilious discharge. Rapid exhaustion. Death on 3rd day. No P.M.

Carcinoma of rectum.—Males 21, females 5. C. 6, R. 8, U. 7, D. 5.

Duration above 1 year—18 months 2; 2 years 4; 3 years 1.

Recurrent carcinoma—males 2, females 1. R. 2, D. 1.

Situation.—Distance from anus—1 inch 2; 1½ inches 6; 2 inches 4; 2½ inches 3; 3 inches 1; 3½ inches 3; 4 inches 2; extending from anus 4.

Treatment.—Left inguinal colotomy 3; excision of rectum 7; including Kraske's method 5; perineal excision 1; parasacral incision 1; preceded by left inguinal colotomy in 1 case; cœliotomy for ascites from dissemination 1; excision of prolapsed gut from previous colotomy 1.

Fatal cases.

1. J. McI—, male, æt. 55. Artist. Diarrhœa for 5 years, more during last year, with tenesmus and pain on defæcation. Pain independently of defæcation for 3 weeks. Ring carcinoma infiltrating tissues outside the bowel; lower margin just within reach of finger. Left inguinal colotomy on 9th day, short mesocolon; gut opened on 4th day. Sudden death on 21st day. No P.M.

2. W. D—, male, æt. 44. Leather-dresser. Diarrhœa for 5 months; occasional blood in stools. Growth extending from just inside anus, invading ischio-rectal fossæ; upper limit of growth cannot be felt. Urine very offensive, alkaline, $\frac{3}{4}$ albumen. Left inguinal colotomy on the 5th day; muscles divided

in direction of their fibres; bowel completely divided. Cystitis increased. Abscess incised in each ischio-rectal fossa. Irregular fever. Gradual exhaustion. Death on 34th day. P.M.—Posterior part of pelvis filled with growth, firmly adherent to wall. Growth involved lower three inches of rectum and the base of the bladder; communication with bladder admitting lead pencil at base of trigone. Intense cystitis. No secondary growths. Liver fatty. Congestion and œdema of lungs. Heart flabby and dilated.

3. A. R—, male, æt. 58. Labourer. Admitted for cellulitis of forearm. Incisions. Constipation. Growth in rectum, extending upwards from 2½ inches above anus. Left inguinal colotomy. Death within an hour. P.M.—Annular growth in rectum involving bowel for 1 inch. Recent pleural adhesions. Aortic atheroma.

4. G. K—, male, æt. 61. Pain on defæcation for 1½ years, increased during last 3 months. Occasional blood in stools. Diarrhœa. Loss of flesh. Annular growth 2½ inches from anus. Quadrilateral incision over sacrum, and flap turned down. Coccyx and one segment of sacrum removed. Bowel pulled down with difficulty; glass tube inserted. Patient failed; operation not completed. Bowel sloughed at upper end. Operation completed 4 days later. Wound offensive. Vomiting. Gradually increasing exhaustion. Death on 16th day. P.M.—Rectum firmly implanted. No peritonitis. Lungs wasted, with slight emphysema. Heart small. Liver fatty. Growth had been fully removed.

5. G. W—, male, æt. 64. Gardener. Pain and passage of blood *per rectum*. Growth excised at Middlesex Hospital eight months after onset of symptoms. Urine escaped from perinæal wound since then. Recurrent growth noted two months before admission. On examination, recurrent growth extended from anus to above reach of finger. Glands enlarged in groin. Cystitis. Urine passed *per rectum*. Left inguinal colotomy on 6th day. Mesocolon short. Glass rod through mesentery. Gut opened three days later. Acute abdominal pain followed. Temperature rose. Slight tenderness around colotomy opening. Face became slightly sunken. No vomiting or distension of abdomen. Death on 11th day. P.M.—Coils of small gut in neighbourhood of colotomy covered with flakes of lymph, and injected. Numerous secondary nodules in liver, Rectum decomposed. Other organs healthy.

6. R. P. H—, male, æt. 56. Traveller. History of rectal trouble for two years. Swelling of scrotum for five days. Rapid emaciation of late. Admitted with large prolapse of rectum; the surface of the prolapse was rough and ulcerated, fistulæ in ano. Swelling of right side of scrotum. Fæces passed unconsciously. Albuminuria. Rigors on the three days following admission. Treated by boracic baths. Skin of scrotum sloughed. Became feebler, with muttering delirium at night. Rigor repeated on 16th day, followed by irregular fever, and later by subnormal temperature. Muttering delirium increased. Coldness of extremities. Diarrhœa. Gradual failure. Death on 29th day. P.M.—Rectum in its whole length affected by growth. Emphysema with calcareous nodules at apices.

Squamous.

Tongue.—Males 23, females 1. C. 11, R. 6, U. 7. History of syphilis 6. Chronic superficial glossitis 5; previous gummata 1. Duration above one year:

18 months 2, 19 months 1, 2 years 2, 3 years 1. Glands involved 13. Floor of mouth involved 8.

Treatment.—Excision of tongue 3; partial excision 8; removal of glands 5; cheek slit 1; Kocher's method 1; laryngotomy 1; excision with portion of alveolar margin 1; ligature of lingual 1.

Tongue, recurrent.—Males 2. C. 2. Floor of mouth involved 1; erysipelas 1. (*Vide* Special Table II.)

Treatment.—Excision of tongue 1; excision after division of cheek and jaw 1.

Cheek.—Males 2, females 2. C. 2, R. 1, U. 1. Internal surface 3; external surface 1. In scar of lupus 1. Excised 3. Glands involved 1; no operation.

Lip.—Males 5. C. 5. Lower in all. Excision in all. Glands involved 1. Excision of tongue for epithelioma three years previously 1.

Glands.—Males 9, females 1. C. 2, R. 4, U. 4. Previous epithelioma of tongue 8, of lip 2. Excised 6; third recurrence 1; immunity for two years, 1.

Alveolar border.—Males 5, females 1. C. 2, R. 3, U. 1. Recurrent 3; jaw involved 5; glands involved 3; excision with portion of jaw 5; upper jaw 3; lower 2.

Floor of mouth.—Males 5. C. 1, R. 2, U. 1, D. 1. Recurrent 1; glands involved 2; phthisis 1.

Treatment.—Excision 3. Division of lingual nerve in recurrent case.

Fatal case.—W. T. B—, male, æt. 47. Labourer. Pyæmia. (*Vide* Special Table III.)

Tonsil.—Males 2. U. 1, D. 1. Excision 1.

Fatal case.—W. C—, male, æt. 53. Printer. History of sore throat followed by soreness of tongue for 3 months. Epitheliomatous ulcer involving left tonsil, and extending forwards to the alveolar process of the lower jaw. Glands enlarged along anterior border of sterno-mastoid. Tongue could be well protruded. Operation 2nd day. Preliminary laryngotomy and pharynx plugged, cheek slit, and jaw divided at angle. Growth removed and glands. Slight fever after operation. Discharge became offensive. Took food badly. Gradual exhaustion. Death on 8th day. P.M.—No growth found. Left pleura obliterated by adhesions. Healed tubercle at apices. Lungs congested and œdematous. Liver fatty.

Pharynx.—Males 1, females 1. R. 1, U. 1. Glands involved 1; larynx involved 1, previous tracheotomy. Gastrostomy, Albert's method 1; operation not advised 1.

Palate.—Males 3. C. 2, U. 1. Glands involved 1; pharynx involved 1. Excision in 2; cheek slit 1.

Larynx.—Males 3, females 1. R. 1, U. 1, D. 2. Intrinsic 3; extrinsic 1; arising upon tuberculous laryngitis 1.

Treatment.—Partial laryngectomy 1; tracheotomy 1.

Fatal cases.

1. C. T. B—, male, æt. 60. Painter. Alteration of voice for 12 months, with little pain on phonation. No cough. Left cord presented a warty ulcerated growth. Tracheotomy and introduction of Hahn's tube. Thyrotomy and left

half of larynx removed. Wound sutured. Temperature rose to 102.6° with rapid respiration. Death on 2nd day. P.M.—Both lungs œdematous, and tubes full of frothy mucus. Old tuberculous deposit at right apex. Kidneys, little fatty change. Liver firm.

2. H. E—, male, æt. 46. Swelling of neck noticed 9 months before admission, which gradually increased. Cough 6 weeks. Difficulty of swallowing for 3 weeks, with some swelling of tongue. Malignant glands on each side of neck, glossitis, difficulty of swallowing, with irritating cough. Laryngoscopic examination impossible. Sudden death on 15th day. P.M.—Epiglottis replaced by growth extending forwards into tongue; cervical glands extensively involved, and growth infiltrating sterno-mastoids. Larynx, pharynx, and trachea embedded in growth, and pharynx was very much narrowed. Pleural adhesions. Aspiration broncho-pneumonia. Arterio-sclerotic kidneys.

Œsophagus.—Males 12. R. 7, U. 2, D. 3. Situation: distance from teeth, $8\frac{1}{2}$ inches 5; $9\frac{1}{2}$ inches 1; $11\frac{1}{2}$ inches 1; 14 inches 2; high up 1. Glands involved 1; paralysis of left vocal cord 1.

Treatment.—Gastrostomy 8; died 4.

Fatal cases.

1. G. H—, male, æt. 58. Clerk. Two sisters died with malignant disease. Increasing difficulty of swallowing for 4 months. Emaciation. Obstruction to bougie 16 inches from teeth. Gastrostomy by Albert's method on 2nd day. Fed by stomach and by rectum every four hours. Rapidly became weaker. Sleeplessness. Temperature rose to 102.8° before death on 7th day. No P.M.

2. C. K—, male, æt. 43. Father died of cancer. Difficulty of swallowing, with cough for eight months. Sudden onset of symptoms, and later gradual increase. Expectoration of blood occasionally. Admitted and operation not advised. Readmitted three months later with increased difficulty of swallowing and breathing. Thickening about cricoid cartilage; no definite glands felt. Obstruction $8\frac{1}{2}$ inches from teeth. Symonds' tube passed; was not satisfactory. Could eat fish with difficulty. Gastrostomy by Albert's method on 3rd day. Progressive emaciation and weakness. Cough and expectoration. Death on 15th day. P.M.—Œsophagus invaded by ulcerating growth, extending downwards from close to the epiglottis for 4 inches; it had invaded posterior wall of the trachea, and opening existed into the air-passages. Glands of neck infiltrated with growth. Extensive broncho-pneumonia in right lung, with pleurisy.

3. J. H—, male, æt. 58. Waiter. Three months before admission hoarseness and loss of voice, followed by difficulty of swallowing a month later. Cough. Increase of symptoms. On examination, left abductor paralysis, enlarged glands in left supra-clavicular region; left pupil contracted. Obstruction to bougie $11\frac{1}{2}$ inches from teeth, and also lower down. Cannot take solids. Gastrostomy on 14th day by Senn's method. Irregular fever after operation, with increase of cough. Death on 20th day. P.M.—Gastrostomy opening to left of greater curvature. Lower $1\frac{1}{2}$ inches of œsophagus converted into a cancerous cavity large enough to hold a walnut; at the lower aspect of this dilatation the opening into the stomach was very tightly strictured. Glands in posterior mediastinum and gastro-hepatic omentum infiltrated with growth. Right lower lobe almost completely consolidated by broncho-pneumonia, dirty reddish-grey

in colour, and practically gangrenous. Few patches of broncho-pneumonia in left lower lobe. Bronchi contained offensive muco-pus.

Tympanum.—Female 1. R. 1. Stacke's operation.

Forehead.—Female 1. C. 1. Excision.

Nose.—Male 1. U. 1.

Parotid.—Males 2. R. 2. Readmission 1. Partial excision; arose in epithelial areas of ordinary parotid tumour.

Neck.—Males 2. R. 2. Same case; excision 1.

Groin.—Male 1. R. 1. Attempted excision.

Hand.—Male 1. C. 1. Amputation of forearm, and clearance of axilla.

Penis.—Males 4. C. 2, R. 2. Glands involved 2.

Treatment.—Amputation 4; Pearce Gould's method 1.

Scrotum.—Male 1. C. 1. Excision.

Cervix uteri.—Females 2. R. 1, D. 1. Involving urethra 1; secondary peritoneal growths 1.

Treatment.—Supra-pubic cystotomy 1; enterostomy with Paul's tube 1.

Fatal case.—J. B—, female, æt. 66. Abdominal pain, with constipation and attacks of vomiting for four months. Gradual increase of symptoms. Admitted with chronic intestinal obstruction. Median cœliotomy; pelvis filled with new growth and multiple peritoneal growths, several of which had encircled the small gut, producing great narrowing of the lumen. Enterotomy performed with Paul's tube above the highest stricture. *Per vaginam* advanced carcinoma of the cervix was found. Obstruction relieved, but suppression of urine supervened, and death occurred on 11th day. No P.M.

Bladder.—Males 3. R. 2, D. 1.

Treatment.—Excision 1; by supra-pubic route 1; supra-pubic cystotomy 2.

Fatal case.—D. L—, male, æt. 71. Gasfitter. Passed gravel seven years before admission. Hæmaturia for a fortnight; no pain. On examination profuse hæmaturia; prostate enlarged. Supra-pubic cystotomy on 2nd day; malignant growth on left side of base of bladder. Irregular fever after operation. Cough. Noisy delirium at night; frequently removed the dressings. Edges of wound sloughed. Cystitis. Increasing feebleness. Death on 16th day. P.M.—Supra-pubic opening encrusted with phosphates; bladder filled with offensive urine, its walls hypertrophied, and summits of ridges of the mucosa almost black. Epithelioma on left side, between orifices of urethra and ureter, infiltrating all the walls of the bladder. Prostate enlarged. Tissues around bladder infiltrated with pus. Left ureter greatly dilated, also pelvis and calyces of kidney. Kidneys show the result of backward pressure, *plus* senile atrophy. New growth in liver. Lungs emphysematous, with basal œdema.

Epithelioma of kidney.—Male 1. D. 1.

Fatal case.—A. O—, male, æt. 38. Has had eight separate attacks of urethritis. Twenty years' history of pus in the urine at intervals. Scarlet fever three years ago; at that time rise of temperature to 100° noted, temperature fell with discharge of pus in the urine. Three to four years ago a prostatic abscess was diagnosed. Many years ago with first attack of cystitis frequent micturition, but of late frequency has been normal. Pain in the left loin was

first noted twenty years ago, due to blow from boxing, then passed blood on two occasions, has had pain in this region, on and off, ever since; dull and heavy in character, extends to navel and groin. Pain on right side and under left shoulder-blade for last few days. During the week before admission a rigor on two successive nights, and for the last ten days has had to change his shirt each night. Hæmaturia has not been a prominent symptom; in fact, has passed little blood until after examination 14 days ago; since then has been constant enough to colour urine. Swelling below left costal margin noted by himself three weeks ago, and it appeared not to vary in size. Great and tender enlargement of left kidney. Liver enlarged, edge felt nearly to umbilicus; tender. Urine, acid, albumen, blood, and large number of pus cells; no casts present. Temperature $102^{\circ}8'$. Nephrotomy on 3rd day, kidney greatly enlarged, pus found, and tube inserted. Fever became less, but pain and tenderness increased on right side. Patient rapidly became more feeble. Urine gradually diminishing in amount, and temperature becoming subnormal four days before death, which occurred on the 21st day. P.M.—Large collection of straw-coloured ascitic fluid. Liver enormous, with numerous nodules of new growth; it was adherent to the diaphragm and abdominal wall. Large mass of new growth in lower portion of left kidney; in the upper part was a series of intercommunicating cavities filled with greenish pus; one cavity contained two large calculi composed of calcium and magnesium phosphate, with calcium carbonate. Compensatory hypertrophy of right kidney. Numerous nodules of growth in lung, and one small nodule in spleen.

Rodent ulcer.—Males 7, females 6. C. 10, R. 1, U. 2. Outer canthus 1; inner canthus 1; cheek 3; forehead 3; groin 1; chin 1; of cheek and nose 1; two separate ulcers separated by a wide gap.

Treatment.—Excision 10; grafted 1.

Rodent ulcer, recurrent.—Females 2. R. 2. Removal two years; 1 year and 4 months previously 1. Excision. Same case.

Sarcoma.

Central sarcoma of humerus; spontaneous fracture.—J. G.—, male, æt. 14. Family history good. On the day preceding admission patient fell from a van on to his left shoulder; he had a little pain, and felt faint. After the accident he went to a doctor, who told him his shoulder was dislocated, and attempts at reduction with the heel in the axilla were made. The boy could not use his arm when he reached home, and noticed next morning that the shoulder was swollen. On examination, there was considerable swelling of the left shoulder, which was tender. Swelling firm; slightly increased mobility at the site of the surgical neck of the humerus. No crepitus. Some depression beneath the acromion. During the night the temperature rose to $102^{\circ}8'$, and remained about that level for the three succeeding days, after which it became normal. The swelling increased, especially to the inner side, where a marked prominence was noted. The supra-clavicular hollow was obliterated, and the arm also swollen. The head of the bone could not be differentiated. Attempts at movement caused pain. Measurement around the shoulder showed an increase of $5\frac{1}{4}$ inches, round the humerus $2\frac{1}{2}$ inches. Leiter's coils were applied, and 6 leeches. By the 9th day the swelling had considerably decreased. Measurements round the shoulder

showed an increase of $3\frac{3}{4}$ inches, and 2 inches round the humerus; no alteration in the length of the bone. Four inches below the tip of the acromion a sharp round edge could be felt, which was assumed to be the upper end of the lower fragment of a fractured humerus. Doubtful crepitus could be obtained, and increased mobility was still present. With the Röntgen rays the shaft of the humerus could be made out below, ending above in a dark mass, which could not be interpreted. On the 19th day, no further alteration in the condition having occurred, an exploratory incision was made, and an extensive comminuted fracture of the bone found, with a mass to the inner side, a portion of which, on removal, showed unmistakable evidence of sarcoma. An attempt at removal was made, during which there was much hæmorrhage, and the patient suddenly failed. One and a half pints of saline with brandy were infused into the median basilic vein, and a brandy enema given. Cavity plugged with gauze. Patient recovered from the shock after a few hours. There had been irregular slight fever since admission, with a gradual increase on the 3 days preceding exploration. The plugging did not completely arrest the hæmorrhage, so amputation at the shoulder-joint was performed on the following day, the axillary vessels being first tied through a separate incision. Hæmorrhage was severe, mainly capillary oozing; the blood clotting badly, and being diluted from the infusion. The patient failing, the wound was partially sutured and the cavity plugged with gauze. It was found that a central growth had destroyed a large portion of the bone, and that fracture had occurred. Microscopically the growth was a mixed-celled sarcoma, chiefly small spindle-cells, with a good number of giant-cells, and evidently highly malignant in character. 24th day, wound dressed and more sutures inserted under anæsthesia. The anæmia is decreasing. Progress uneventful until the 49th day, when a recurrence of the growth was found, which rapidly increased. Recurrence started in the scar at the posterior and lower part. Recurrent growth excised on 52nd day, with portions of pectoral, serratus magnus, and scapular muscles, together with a portion of the glenoid cavity and axillary border of the scapula. The recurrent growth measured $3\frac{1}{2}$ inches transversely, invaded the muscles and the scapula. Progress satisfactory, with the exception of a large granulating area being left; to remedy this the scapula was excised on the 66th day. Shock was marked; treated by saline infusion $1\frac{1}{2}$ pints, with a brandy enema. Rapid recovery. Discharged on 77th day. Readmitted 6 weeks later with a recurrence the size of a small "fives" ball in the scar. This was excised on the 2nd day. Coley's fluid, in doses of 1 minim per diem, was given on the 24th and succeeding days. No reaction was observed. Temperature began to rise on the 44th day, and a friction rub was audible in the left axilla. Transferred to Medical side on 50th day, with signs of pleurisy and consolidation of lung. He died some days later. There was secondary growth in the lung.

Periosteal sarcoma of humerus.—G. D—, male, æt. 22. Clerk. Family history good. Ten months before admission, fracture of right humerus. Treated by splints for 1 month, and sling for another month. At the end of this time swelling noted to outer side of right arm below shoulder. Gradual increase of size, with very rapid increase during fortnight preceding admission, the swelling spreading round the arm. Occasional dull, aching pain. On examination, firm swelling surrounding upper end of right humerus, being most marked on anterior

and internal surfaces. Skin not involved. No pulsation or egg-shell crackling. Movements of shoulder unimpaired, with the exception of being able to raise the arm above the head. Amputation at the shoulder-joint by large external skin-flap. Shock after operation treated by saline injection $\frac{1}{2}$ pint with brandy 1 ounce into rectum; repeated during night. A large tumour surrounded the upper half of the shaft of the humerus; it had also invaded the shoulder-joint on its inner aspect by a number of whitish lobulated projections, somewhat resembling in shape hypertrophied synovial folds. On section, tumour periosteal, whitish, firm, with areas of ossification. It had invaded the medulla. No evidence of the fracture could be detected. Microscopically it was a calcifying sarcoma. Discharged 19th day. One month later swelling noticed in scar, which rapidly increased. Readmitted $3\frac{1}{2}$ months after discharge. On examination, globular swelling projecting forwards, size of apple, springing from glenoid cavity, and feeling like the stump of an amputation of humerus high up. It invaded the pectoral muscles. Some dullness to percussion, with weakness of breath-sounds below right clavicle. Excision of the growth with the scapula on the 4th day; Berger's incision used. Clavicle divided with Gigli's saw, and vessels then tied. Shock treated by rectal injection of saline with brandy. Progress uneventful. 17th day, weakness of breath-sounds, with few obscure râles at right apex. Coley's fluid 1 minim given on 17th day. Temperature rose to 99.2° 3 hours after injection, and patient complained of headache, with slight malaise. Coley's fluid repeated on 19th and 20th days, increased to 2 minims on 21st day; $\frac{1}{2}$ minim given on 22nd day, 2 minims on 23rd day, repeated on the 26th and 27th days. There was no further reaction. Discharged on 29th day. Died two months later with signs of pulmonary deposits.

Sarcoma of humerus.—F. C—, male, æt. 37. Family history good. Three months before admission was lifted out of the hold of a vessel, and "felt something go in his shoulder." Stiffness and pain in left shoulder on the two following days; treated with liniment, and regained free movement in the joint at the end of 3 weeks, with the exception of being able to lift his arm above the head; he suffered pain in attempting to do this. Stiffness and pain recurred in shoulder, and increased; swelling noted 2 months after the trauma, which has rapidly increased. On examination, tumour surrounding upper end of left humerus, mainly on the anterior and internal aspects, extending well into the axilla, where a definite knob the size of a turkey's egg can be felt. Tumour soft and compressible; pulsation felt on deep pressure. No definite egg-shell crackling, but fine crepitant sensation occasionally obtained just above and internal to insertion of deltoid. Arm and shoulder wasted. Flexion and extension of shoulder somewhat impaired; adduction, abduction, and extension upwards markedly impaired, particularly abduction. Patient refused amputation. Discharged 8th day.

Periosteal sarcoma of sternum.—E. F—, female, æt. 61. Five months before admission slight soreness over manubrium, and swelling noticed the size of a nut. Gradual increase in size of tumour. On examination, oblong tumour, measuring 3 inches transversely and $1\frac{1}{2}$ inches vertically, situated on the anterior surface of the sternum at the level of the 2nd and 3rd costal cartilages. The base is quadrilateral, with rounded angles, fixed to sternum, and merges into the cartilages of

the ribs. Consistence elastic, with softer fluctuating bosses. Skin not adherent. No egg-shell crackling or pulsation. Treated with Pot. Iod. 10 grains 3 times a day for 9 days without improvement. Coley's fluid injected in 1-minim doses on the 15th day, and repeated on alternate days for 4 weeks. The temperature rose to 100.8° on the 19th day, and to 102.2° on the 32nd day. No malaise, headache, or other evidence of reaction. The measurements on the 22nd day were $2\frac{3}{4}$ inches transversely and 2 inches vertically; on the 29th day, transversely $2\frac{1}{2}$ inches, and vertically $1\frac{7}{8}$ inches, the tumour then being obviously smaller and softer; 32nd day, $2\frac{1}{2}$ inches by $1\frac{5}{8}$ inches; 43rd day, $2\frac{3}{8}$ inches and $1\frac{5}{8}$ inches. Discharged as relieved on 41st day. When seen some months later as an outpatient the tumour had still further decreased in size, although the Coley's fluid had been discontinued.

Central sarcoma of femur.—L. K—, female, æt. 25. Four and a half months before admission twisted her left knee; it became swollen and red. Treated by embrocation, and later a back splint; further injury to knee $2\frac{1}{2}$ months before admission, after which it became purple and extremely painful. On examination, left knee greatly swollen, especially on the inner side, where an area of fluctuation is present. Slight movement in joint, with increase of lateral mobility. Apparent eversion of tibia and fibula. Increased surface heat. Provisional diagnosis of tuberculous joint disease was made, and a Macintyre splint with an ice-bag applied. Knee extremely painful, the pain being more intense at night. Incision made into swelling on inner side; a large quantity of blood, with old blood-clot, removed; hæmorrhage arrested by pressure. The lower end of femur was rough and spiculated. Temperature rose to 101° for 3 days after operation. Pain worse, and much increased by any movement. Calcium chloride in 10-grain doses given 3 times a day. Wound somewhat inflamed on 6th day, and director passed into wound, allowing escape of small quantity of blood-stained fluid. Pain relieved. 23rd day, director allowed escape of small quantity of semi-purulent fluid. 39th day, small swelling noticed on position of scar the size of hen's egg. Pain remains severe. Calcium chloride discontinued. The swelling on inner side of joint rapidly increased, involving the skin and becoming deep purple in colour. Amputation of thigh on 46th day just below the centre of the shaft of the femur. It was found that the lower end of the femur had been destroyed by the growth of a soft sarcoma, into which hæmorrhage had occurred, so that the section looked exactly like blood-clot. The knee-joint was not involved. Microscopically there was much blood, with a few small round sarcoma cells. Wound suppurated. Re-amputation just below the great trochanter by a racket incision on the 81st day. No recurrence found in stump. Discharged cured on 114th day.

Sarcoma of tibia.—E. M—, female, æt. 45. Married. Eleven years ago swelling noticed below and to the outer side of left knee; when first noticed it was situated more anteriorly than at present. Great increase of size in last 6 months. On examination, a tumour the size of an orange, situated at the upper end of the left tibia to its outer side. Firm, but sense of elasticity present. Skin not adherent. No bony plates or pulsation. Movements of knee normal. No expansion of bone seen with X rays. Tumour increased slightly after admission, became more tender, and pulsation was detected. Excised after application

of tourniquet to thigh. Tumour encapsuled on surface sprang from tibia, and had invaded the substance of the bones. Growth firm and whitish. Microscopically it was a myxo-fibro-sarcoma (spindle-celled). Discharged on 85th day. Readmitted 4 months later. Wound had never completely healed, and for the last 3 weeks it had been painful. Swelling noticed in left groin 1 month before admission. On examination, recurrent mass of growth in scar, with an enlargement of the glands in the groin the size of an apricot. Amputation of thigh in the lower third on the 16th day; glands also excised. The recurrent growth was extensive—extended from the surface to the tibia, filling the interior of the bone from the upper end to halfway down the shaft. On section it was whitish, firm, and presented a reticulated surface. The growth in the glands was similar. Another mass of growth in Hunter's canal was softish and beginning to break down. Microscopically only spindle-cells were found. Progress satisfactory, with the exception of cough. Some œdema of lung bases was detected; no evidence of secondary growth. Coley's fluid was given on the 50th day in $\frac{1}{2}$ -minim doses, gradually increased to 10 minims. There was no reaction. Discharged on 105th day.

Periosteal sarcoma of fibula.—W. S—, male, æt. 17. Six months before admission, after playing football, small swelling noticed on outer side of left ankle. Gradual increase in size. On examination, a fusiform swelling, measuring $4\frac{1}{2}$ inches in long diameter, growing from the lower end of the left fibula. Firm, with sense of elasticity. No pulsation or egg-shell crackling. Faded into neighbouring parts. Amputation at seat of election on 11th day. The tumour was periosteal; had surrounded the whole of the shaft and infiltrated the muscles. On section, white and firm, with ossifying areas. Medulla invaded. Microscopically an osteoid sarcoma. Discharged cured on 25th day.

Alveolar sarcoma of toe.—T. V—, male, æt. 45. Farrier. Family history good. Fourteen years ago small swelling size of pea noticed on top of right big toe, appearing 9 months after a blow with a sledge-hammer. Gradual increase for 5 years, when it began to push in the nail on the outer side. Rapid increase in size for last year. On examination, a tumour the size of a chestnut on the tip and outer side of right great toe, overlapping the nail on the outer side. Skin adherent and red. Consistence hard. Excised on 8th day. Tumour very hard, white on section, and fibrillated. Arose from matrix of nail. Pathologist reported tumour to be an "alveolar sarcoma, apparently arising from a transformation of a pre-existing chondroma." Discharged cured on 29th day.

Sarcoma of leg.—J. D—, male, æt. 32. Musician. Swelling noticed in right popliteal space 12 months before admission; it was then the size of an orange, and has gradually increased till it attained 3 to 4 times that size. Three months ago it was aspirated, and pure blood withdrawn; slight pain since then. On examination, pale and emaciated man, with a tumour the size of a cocoa-nut in the right popliteal space; the lower part is firm and solid; fluctuation is obtained in the upper part. Skin stretched, but not adherent. Increase of 1 inch in circumference of knee. No pulsation or egg-shell crackling. Fluctuating area aspirated, $\frac{1}{2}$ pint of altered blood escaped, leaving a well-defined cavity; this rapidly refilled. Amputation of thigh at its centre by skin flaps on 16th day. On section of the tumour a quantity of black clotted blood escaped. In

the lower part the growth consisted of a number of lobulated masses, each about the size of a walnut, and encapsuled; they were of a pale pink colour, and soft. Deeper in the section the lobulation was absent, the growth becoming softer and brain-like in consistence and appearance. In the upper part, occupying the popliteal space, was a cyst with definite walls capable of holding half a pint, and filled with blood; this extended beneath the hamstrings. No connection with bone, the tumour being superficial to the soleus; it had destroyed the gastrocnemius. Microscopically it was a spindle-celled sarcoma. Wound suppurated, probably infected by patient's fingers introduced beneath dressing. Discharged cured on 64th day.

Sarcoma of leg arising in connection with bursa.—J. B—, male, æt. 65. Carpenter. Patient fell 3 months before admission, striking his left knee. Swelling noticed on inner side of knee shortly after, and a second swelling appeared just above the tubercle of the tibia two months later. Swellings increased, and became confluent. On examination, a smooth, sausage-shaped swelling extending from the inner tuberosity of the left tibia round the bone in front, terminating just above the tubercle. Swelling more prominent at extremities. Fluctuation present, skin involved being thin and tense. Tumour not moveable over bone, but X rays show no connection with that structure. Punctured, small quantity of blood escaped. Tumour excised on 17th day; it was adherent to the tendon of the sartorius, the fascia, and the tibia. A superficial layer of the bone was removed, raw surface of $2\frac{1}{2}$ inches square being left. Microscopically it was a spindle-celled sarcoma with multinuclear giant-cells. Raw surface covered with Thiersch grafts on 56th day. Grafts failed to adhere. Recurrence noted on 61st day at inner lower angle of wound. Growth excised on 62nd day. Progress satisfactory until 97th day, when further recurrence noted in thigh on inner aspect. Recurrence excised on 98th day; it was superficial to the deep fascia, and in connection with the lymphatics; area of skin between recurrence and wound also excised. Discharged with ulcer on 121st day. Readmitted for grafting of ulcer four weeks later. Attack of erysipelas supervened. (*Vide* Special Table II.) Discharged cured on 137th day. Ulcer was successfully grafted.

Sarcoma of neck.—W. B—, female, æt. 24. Draper's assistant. Swelling of neck first noticed 3 months before admission. Gradual increase in size. Occasional throbbing pain. On examination, a tumour the size of a hen's egg, situated at the posterior border of the sterno-mastoid, about 1 inch above the clavicle. It is connected with the posterior fibres of that muscle. Firm in consistence. Skin not adherent. Excision. Growth partly encapsuled; adherent at posterior part. On section whitish, and somewhat fibrillated. Microscopically a spindle-celled sarcoma.

Sarcoma of thigh.—G. A. B—, female, æt. 22. Nursemaid. Emaciation for last 12 months. Six months before admission attacks of periodical pain in the back, and shooting down the thigh. The thigh was also tender, but no swelling noticed until 3 weeks ago, which was then first observed by her sister. On examination, a large oval swelling surrounding the left thigh on the anterior outer, and posterior aspects. It extends from just below Poupart's ligament to two thirds of the distance down the thigh. Swelling elastic, doubtful

fluctuation being detected. Tenderness. Boundaries of swelling ill-defined. Skin not adherent; not fixed to bone. This was confirmed by skiagram. Hip-joint kept fixed at angle of 30° , any attempt at movement causing pain. Pelvis moved with the thigh; $1\frac{1}{2}$ inches increase in circumference of thigh. Slight irregular fever. No disease of hip or vertebræ detected. Treated by Pot. Iod. in 5-gr. doses, gradually increased to 15 gr. No alteration in size. Lower boundary became more defined. Swelling later increased, especially below Poupart's ligament. Hip became more flexed. Pain continued severe. Exploration of tumour through an incision on antero-external aspect of thigh; a large quantity of mixed blood and caseous material, closely resembling the contents of a tuberculous abscess, was scraped away. A patch of carious bone was felt on outer side of femur, extending for 3 inches below the lesser trochanter. Tumour was situated below the muscles. Microscopical examination of the scrapings showed a quantity of blood, scattered about which were areas of small round sarcoma cells. Patient was improved by the operation, but pain returned and the growth recurred, the first recurrence being noted at the lower end of the incision. Discharged relieved on 80th day.

Sarcoma of thigh arising in connection with bursa.—E. B—, female, æt. 55. Married. Ten years before admission small hard lump noticed beneath the skin at the postero-internal aspect of the thigh, in the situation of the ischial bursa. Painless; gradual increase in size until 3 months before admission, when it had attained the size of a man's fist. Since then it has more than doubled its size, and become painful. On examination, a large tumour, the size of a melon, at the upper inner angle of the thigh. Skin red, adherent, and distinctly œdematous. Elastic. No fixation to bone detected. Slightly tender. Temperature occasionally raised to 100° . Doses of Pot. Iod. 15 gr. produced no effect on the size of the tumour. Tumour was explored on the 11th day; clear serous fluid escaped, and a portion of the tumour was scraped away. Microscopical examination of the scrapings showed the growth to be a small round-celled sarcoma. Coley's fluid in $\frac{1}{2}$ -minim dose was injected into the tumour on the 16th day, and increased on the following day and succeeding six days to 1 minim. The temperature rose to 102.4° after the third injection. The doses of Coley's fluid were gradually increased until 10 min. were given. The temperature occasionally rose, but no marked reaction was observed. The tumour very rapidly increased, invading the pelvis, so that it could be felt above Poupart's ligament, and pressing upon the rectum and bladder so that catheterisation became necessary. It also caused thrombosis of the iliac vein. A quantity of clear serous fluid continually escaped from the exploratory puncture. Discharged on 46th day unrelieved.

Melanotic sarcoma of foot; general sarcomatosis.—A. R—, male, æt. 54. Shoemaker. Sixteen months previously injury to foot, which was neglected, and did not heal. Swelling formed at site of injury, which has increased. Six months ago swelling noticed in groin, and since then swellings have formed all over the body. Gradual emaciation. On examination, swelling size of Tangerine orange, situated between the first and second toes of the right foot, blackish in colour and ulcerated; glands in groin enlarged. Over the whole cutaneous surface of the body are numerous nodules of growth, some as large as a mustard

seed, others of a hazel nut. In places they very accurately follow the course of the veins, elsewhere they form patches of various sizes, black in colour. Irregular fever. Hæmoptysis. Occasional vomiting. Passed blood in stools on two occasions. Restlessness more marked at night. Increasing emaciation and feebleness. Death on 17th day. P.M.—Nodules as above described; several when dissected out were encapsuled, of sooty-black colour. Lymphatic glands all involved, especially the mediastinal and abdominal glands. Nodules of growth in heart, liver, and kidney; very numerous nodules of growth in wall of stomach and small intestine, averaging the size of a pea. Did not especially affect Peyer's patches. Only two nodules in large intestine. Numerous nodules in brain, into which, in several cases, hæmorrhage had occurred. One cavity filled with blood, the size of a walnut, in the right lobe of cerebellum.

Sarcoma of bladder.—A. T., male, æt. 59. Severe attacks of pain in lower abdomen for 3 months. Increased frequency of micturition, with smarting pain in the penis during the act. Hæmaturia for 1 month; clots passed. Pain increased by exercise. Has become anæmic, and lost weight. On examination no tumour felt *per rectum*. Urine acid, blood uniformly mixed. White and red corpuscles, with squamous epithelium seen with the microscope. Attacks of pain occurred, starting in left renal region, and shooting to groin. Urine became ammoniacal. Hæmaturia increased. Signs of bronchitis. Supra-pubic cystotomy on 6th day. Large fungating tumour on left side of trigone infiltrating prostate. Growth palpable *per rectum* during anæsthesia. Bladder drained. Gradual failure. Restlessness, controlled by morphia, preceding death on 14th day. P.M.—Bladder markedly hypertrophied without dilatation. Broad-based fungating tumour on left side, its base measuring $1\frac{1}{2}$ inches across; growth infiltrates prostate. Dirty white on section. Pedunculated papilloma by side of growth size of hazel nut. Kidneys yellow. Cortex thinned; parenchymatous change with interstitial increase. Calcified nodule on dorsal aspect of right lobe of liver, and similar nodule on anterior border of spleen. Left lung extensively adherent. Numerous nodules of growth in both lungs. Hypertrophy of left ventricle. Aortic atheroma. Microscopically the tumour was a mixed-celled sarcoma.

Sarcoma of superior maxilla.—H. S., male, æt. 42. Brush finisher. Family history: grandfather had tumour of face. One month before admission sensation as of something between right incisor and canine teeth; nothing detected on palpation. Right nostril has gradually become occluded, with discharge of pus. Eye became inflamed and proptosed. On examination, swelling on right side of face, slight tenderness at ala of nose; skin inflamed here. Eye proptosed and congested. Abundant purulent discharge from nostril; growth protruding into nares. No enlargement of glands. Antrum opaque to transillumination; antrum explored by incision along orbital plate; opening found leading to antrum. Portion of growth removed found to be a round-celled sarcoma. Inflammation increased after exploration. Fever with a rigor. Proptosis increased. Excision of superior maxilla with eye on 10th day. Patient much improved by operation, fever becoming less, and pain, which had been severe after the exploration, relieved. Progress satisfactory until 42nd day, when secondary hæmorrhage; arrested by plugging. External carotid ligatured on

50th day, and plugs removed. Recurrence noted on 53rd day at inner canthus, which rapidly increased, and before death involved nearly the whole face. Recurrent growths also appeared on left leg, and later on right. Occasional hæmorrhage from face recurrence. Irregular fever. Gradual failure. Death on 97th day. P.M.—Extensive recurrence in face, spreading to palate. Liver fatty. Syphilitic testes, with hydrocele.

Sarcoma of skull.—C. A. H—, male, æt. 10. Scholar. One year before admission a tumour, the size of a small nut, noticed behind the right ear; remained stationary for 9 months, then rapid increase, and operation at Staines Cottage Hospital. Rapid recurrence since then. On examination, a tumour the size of half a cocoa-nut bulging out the right side from the outer canthus to below the ear, extending vertically to 3 inches of the middle line. Growth divided into two portions by previous operation scar; the lower portion is softer and redder, fluctuates, and is more malignant-looking; the upper firmer. Edema of surface. Fixed to bone. Ear depressed downwards. Excision on 6th day. Semicircular incision starting from outer angle of orbit, and including growth; second incision made above this, starting further forwards, and joining first incision behind; skin between two incisions reflected forwards. Half-inch trephine applied above highest margin of growth, and bone divided downwards outside growth by bone forceps. Pulse began to fail, so remainder of operation deferred. Pulse became more feeble after operation. Saline infusion $2\frac{1}{2}$ pints during night; not much improvement. Operation completed 2 days later. Portion of bone, removed by means of Gigli's saw, consisted of squamous portion of temporal, portion of mastoid process, and the zygoma. Portion of dura removed. Growth somewhat pedunculated. Patient left the theatre in good condition, but rapidly failed. Infusion of 3 pints of normal saline $1\frac{1}{2}$ hours after operation, temporary improvement; infusion repeated 4 hours later; slight improvement. Death from shock. Microscopically the growth was a small round-celled sarcoma. P.M.—Blood somewhat watery. Effusion of watery blood over both hemispheres and the cerebellum.

Sarcoma of testicle.—T. G—, male, æt. 70. Gardener. Strain of groin 2 years previously. Enlargement of right testicle noted 18 months. Gradual increase. On examination, right testicle uniformly enlarged and hard. Skin adherent. Cord thickened. Castration on 3rd day; inguinal canal slit up, peritoneum opened, and cord removed as high as possible. Growth firm and dirty white in colour, extended up cord. Round-celled sarcoma. Hæmoptysis after operation. Gradual failure. Death on 8th day. P.M.—Lungs œdematous and congested. Hypertrophy and dilatation of left ventricle. Aortic atheroma. Kidneys of normal size. Capsule stripped easily. Surface slightly granular. Mass of growth in front of abdominal aorta, and right common, and external iliac arteries.

Retro-peritoneal sarcoma.—R. W. I—, male, æt. 27. Indigestion for 7 months previous to admission. Painful swelling noticed on left side of abdomen 3 weeks after a strain, and 4 months after onset of symptoms. Swelling gradually increased; pain in swelling, increased after food. On examination, emaciated man with abdomen enlarged, especially in left epigastric and in umbilical regions. A hard elastic tumour was felt extending from the costal

margin to below the umbilicus, occupying epigastric, umbilical, hypochondriac, and lumbar regions. Nodular surface. No tenderness. Moveable from side to side, but not up and down. Dulness on percussion. No renal or bowel symptoms. Exploratory cœliotomy. Chylous-looking fluid escaped. Large retro-peritoneal growth infiltrating wall of stomach and transverse colon. Portion of growth removed showed round-celled sarcoma. Gradual emaciation and weakness. Death on 26th day. P.M.—Large retro-peritoneal growth surrounding pancreas bulging forwards above stomach and infiltrating great omentum, the stomach being somewhat compressed between these masses. Growth white, had broken down in one place; otherwise was firm in consistence. Secondary nodules over surface of liver.

Sarcoma of peritoneum.—R. S—, male, æt. 50. Labourer. One month previous to admission small epigastric hernia noticed. No other complaint until 4 days ago when vomited; vomiting continued. On examination, small epigastric irreducible hernia. Abdomen swollen and tense. No tumour felt. Resonance obtained in right flank, and in epigastric region. Area of dulness in left flank extending as far as middle line; this area varies with position of patient. Vomiting continued after admission, and abdomen became tender and more swollen. Strength began to fail. Exploratory cœliotomy on 4th day. Large amount of ascitic fluid. Multiple malignant growths on peritoneum. Gradual weakness. Sudden death on 19th day. P.M.—Many pints of blood-stained fluid in abdomen. Omenta and mesentery closely studded with small nodular masses of growth, firm, and white on section. Pathologist reported growth as primarily of peritoneum. Three large cysts in right kidney. Left pleural adhesions. Lungs highly œdematous, and bases congested. Heart large and flabby. Muscle fatty. Mitral valve leaked freely under water pressure. Aortic valves competent. Coronary arteries patent. No pulmonary embolism or thrombosis.

Alveolar sarcoma of lower jaw.—H. H—, male, æt. 19. Clerk. Alveolar abscess of left lower jaw 1 year ago. Seven weeks before admission noticed a small swelling in the same situation, which rapidly increased. Occasional pain. On examination, tumour size of large marble on the left side of the lower jaw in the situation of the molar teeth, firm, and purplish in colour. No expansion of bone. Excision of tumour with 3 inches of lower jaw; artificial tooth-plate introduced. Alveolar abscess developed in right upper jaw; teeth extracted. Recurrence of growth at site of removal of primary tumour, and also in right upper jaw on 25th day. Vomiting and abdominal pain supervened; the vomiting could not be controlled. Rapid emaciation. Death on 34th day. P.M.—Abdomen only examined. Numerous nodules of secondary growth throughout liver, kidneys, mesenteric and retro-peritoneal glands, and even in the intestines. Microscopically growth was alveolar sarcoma.

Sarcoma of bladder.—E. W—, male, æt. 50. Mattress maker. Difficulty of micturition for six months, with pain in the urethra and loin. Occasional hæmaturia. Diarrhœa. Loss of flesh. Swelling of left leg for 6 weeks. On examination, firm tumour rising above pelvic brim to the left of the mid-line, *per rectum* it fills up nearly the whole pelvis; feels nodular, and encroaches largely on the lumen of the bowel. Œdema of left leg. Almost constant

diarrhœa; the urine was also passed largely *per rectum*. Gradual emaciation, with some drowsiness. Attack of pneumonia caused death. P.M.—Pelvic viscera matted together by growth, with a coil of small gut closely adherent to bladder. Whole of the bladder wall infiltrated with growth, which also fungated into its interior; the bladder wall was in places over an inch in thickness. Just above the prostate a small depressed opening led straight into the rectum. Growth spread into the pelvic connective tissue on the left side, and compressed the vessels. The bladder contained an uric acid calculus about 1 inch in diameter. Left ureter greatly dilated, its path through the bladder wall being nodulous, and compressed by growth. Pelvis and calyces of left kidney moderately dilated. Chronic interstitial nephritis. Old tuberculosis at apices. Grey hepatisation of right upper lobe, with pleurisy.

Sarcoma of chest wall.—J. R—, male, æt. 63. (*Vide* Special Table III, "Pyæmia.")

SIMPLE TUMOURS.

Papilloma of bladder.—W. S—, female, æt. 52. Intermittent hæmaturia for two years, with increased frequency of micturition and pain. Hæmaturia used to occur about every 3 weeks, and lasted on the average 3 days. Increase of symptoms until 7 months before admission, when they were relieved by rest, but have since recurred. On examination, some thickening of the base of the bladder could be felt *per vaginam* on the left side. Urine contained a large amount of blood at intervals. Bladder examined by Kelly's method, and also digitally. Supra-pubic cystotomy and excision of growth, which was the size of the palm of the hand, papillated surface, and having a distinct fibrous pedicle; $\frac{1}{2}$ inch of the terminal portion of the ureter was removed with the growth. Considerable shock after operation. Discharged on 43rd day with a small supra-pubic sinus, which afterwards closed.

Granulomata of face.—C. B—, male, æt. 19. Butcher. Swelling appeared on cheek 1 week before admission, and has since rapidly increased, and other papules have appeared. On examination, tumour size of small walnut on right cheek, with irregular surface and of red granular appearance; scattered around this are several smaller tumours of the same character. The tumours were removed, and the raw surface left treated with pure carbolic acid. The larger tumour, after removal, consisted of one mass—about the size of a halfpenny—of deep purple colour, with lobulated surface, somewhat resembling a raspberry. On section the tumour appeared myxomatous, with numerous white septa radiating from a central core of the same appearance. The smaller tumours were similar. Microscopically the tumour was composed of granulation tissue.

Intermuscular lipoma of arm.—S. F—, male, æt. 45. Swelling noted on inner side of elbow for 6 years: gradual increase in size, with sensation of constriction in the arm, and tingling of the little and ring fingers. On examination, large fluctuating swelling, measuring $4\frac{1}{2}$ inches by 3 inches wide, situated to the inner side of the biceps tendon and elbow-joint. Excision of tumour, which was deep, to the bicipital fascia, and closely connected with the bursa between the biceps

tendon and the bicipital tuberosity of the radius. On section it was browner than the majority of lipomata, and presented a finely granular appearance.

Fibro-myoma of uterus.—Females 4. R. 1, U. 2, D. 1; operation not advised 2; ovariectomy and partial excision 1; abdominal hysterectomy and ovariectomy 1.

Fatal case.—H. F—, female, æt. 57. Married. Swelling of abdomen for 20 years, with gradual increase. Irregular hæmorrhages for 6 years. Offensive vaginal discharge for 3 weeks. On examination, hard rounded swelling reaching from pubes to 1 inch above the umbilicus; dulness on percussion over this area. An offensive purulent vaginal discharge was present. Temperature 101°. Treated by creolin vaginal douche, discharge became less offensive, and the temperature gradually declined to normal by the 6th day. Median cœliotomy on 6th day; a large fibroid, measuring 8 inches by 6 inches, and growing from the fundus of the uterus, was brought outside the abdomen; the cervix was divided, its canal sutured, and the stump covered with peritoneal flaps; ovaries and tubes also removed. On section, the tumour exhibited a large cavity containing blood-stained fluid and lined by mucoid material; tumour œdematous, and strips of it could be easily removed with a small quantity of pus between the layers. Microscopically it was an intra-mural fibroid, showing early active growth. Temperature rose to 101·6° on the day following operation, and then gradually declined until the 4th day, and then rose again. Pulse rate rose to 116, and then declined to 96 by the 4th day. Abdomen became slightly distended. Mag. Sulph. was given, and later Ol. Ric., with simple enemata, and distension was slightly relieved, but no large action of the bowels resulted. Distension returned, with abdominal pain, on the 5th day; pulse rate rose to 150, and she rapidly failed and died on the 5th day after operation. P.M.—Extreme decomposition; cœliotomy wound was very septic, and led into a cavity containing free pus. Coils of intestine in immediate neighbourhood of the operation were thickly coated with greenish lymph, and there was also general peritonitis, with scattered flakes of lymph and much distension of bowel.

CYSTS.

Hydatid.

1. J. F—, male, æt. 38. Boatman. Hydatid of liver. Has spent some years in Australia, and while there tended cattle. Has lived in England for the last 11 years. Has not kept a dog for 2 years. Attack of abdominal pain and vomiting 20 months before admission, which lasted a few days; two similar attacks since then, the last being 6 months ago; on that occasion he became deeply jaundiced, and urine was dark-coloured. Swelling in right hypochondrium noticed for 1 month; has increased $\frac{1}{2}$ in size since then. On examination a tumour was seen in the epigastric and right hypochondriac regions, circular and extending from just to the right of the mid-line to the semilunar line; its lowest margin corresponded to the level of the most dependent part of the 11th rib; above it overlaps the costal margin. Tumour tense and elastic, ? fluctuation. No hydatid thrill. Moves well with respiration, allowing upper border to be separated from costal margin. Dull on percussion. Liver dulness begins at 7th rib. Operation on 9th day. Vertical incision through rectus over most

prominent part of tumour. Liver enlarged, the lower margin reaching as low as umbilicus. Quadrate lobe also enlarged; at the lower margin was a small white depressed area, accurately resembling in appearance a secondary cancerous nodule, and feeling very hard. Rest of the lobe appeared to be cystic. Aspirated, no fluid obtained, but on withdrawing needle small piece of endocyst came away. Peritoneal cavity packed off with sponges. Cyst incised; small quantity of fluid escaped, and large number of daughter-cysts of various sizes removed. Cavity extended upwards to diaphragm and backwards to posterior abdominal wall. Second cyst found between layers of falciform ligament enucleated. Ectocyst brought forwards and stitched to abdominal wall. White nodule resembling carcinoma excised, and found to be portion of wall of cyst, with few small daughter-cysts, which had undergone calcareous degeneration. Gauze plug introduced into cavity. Discharge of pure bile on day following operation, followed later by greenish-white discharge with offensive odour. Daughter-cysts discharged on two occasions. Cavity syringed out with creolin; caused pain and vomiting. Discharge of bile gradually ceased, and was followed by escape of clear mucus. Cavity gradually closed. Discharged to convalescent home with small sinus on 70th day.

2. S. W—, male, æt. 6. Hydatid of liver and lung. Patient has always been delicate, and suffered from bad cough. Three years previous to admission a small lump, size of marble, was noticed in right hypochondrium; gradual increase. No pain or jaundice. On examination, large tumour seen in the right upper abdomen, occupying the hypochondriac, lumbar, and encroaching upon the umbilical regions. Lower portion of the tumour is hemispherical and elastic, and towards the umbilicus is a hard nodular projection; this portion is marked off by a distinct ridge from the upper, which is hard, and appears to be the enlarged liver. Moves with respiration, and can be grasped between the two hands and lifted out of the lumbar region. No hydatid thrill. Dull on percussion. Liver dulness starts at the 7th rib, and verges into that of the tumour. Right kidney palpable. Costal angle widened. The upper part of the right side of the chest in front bulges. Percussion note is dull to the level of the 3rd rib in same situation. Dulness is also present, high in the axilla and at the apex of the lung posteriorly. Over the dull area in front the breathing is tubular, and vocal resonance is increased. Behind all sounds are diminished. No crepitations elicited by coughing. Decided trace of albumen in the urine. An attack of bronchitis shortly after admission. Operation on 15th day, vertical incision over tumour, liver presented, and a cyst was found attached to the under surface of the right lobe. Cyst brought to surface and aspirated, about 1 pint of hydatid fluid evacuated. No daughter-cysts. Cyst wall partially removed, and the edges of the remainder stitched to the abdominal wall. Gauze plug introduced. Discharge of bile on following days. Slight irregular fever. Discharge became offensive, and apparently did not contain bile, on 24th day after operation. Discharge became less, and wound closed, until only a small sinus was present. The fever disappeared. X ray examination on the 45th day showed a well-marked opacity sufficient to obliterate the rib shadow, about the size of a cricket ball, extending from the 2nd to the upper margin of the 6th rib; its lower edge was well defined. Examination of the chest on the 54th day showed bulging anteriorly at the level of the 3rd and 4th ribs. Chest moves well and

equally. Total dulness to percussion in front from the apex down to the 2nd interspace; below this dulness gradually shades off. Below the 5th rib and in the axilla the note is more resonant than in this area on the left. No alteration detected behind. On auscultation, breath-sounds are more feeble in front than on the left side; behind some tubular breathing is heard opposite the spine of the right scapula. Vocal fremitus equal. Vocal resonance slightly diminished in front on right side. Right chest measures $12\frac{1}{2}$ inches, the left 12 inches. Operation 54th day; oblique incision over 2nd rib, a portion of which was resected; pleura adherent and bulging. Exploring needle introduced; fluid obtained about $\frac{1}{2}$ inch from surface; cyst immediately incised, and several ounces of clear fluid escaped. Cyst wall peeled out with ease. Cyst about size of orange; no daughter-cysts. Drainage-tube introduced. Temperature rose on following day to 102° . Patient fairly comfortable. No note as to rate of respiration. 56th day, respiratory rate 86 per minute. Right chest moves badly. Resonance impaired over whole of right lung posteriorly; breath-sounds are accompanied by numerous coarse râles, and expiration in places tubular. Temperature varied from 100° to 102° . Pulse 144. 57th day, much easier. Temperature fell to $98\cdot4^{\circ}$ in afternoon. Respirations 63. Prefers to lie on right side. Tube removed and gauze drain introduced. Little discharge. 58th day, temperature rose to $102\cdot6^{\circ}$ last night. Respirations 46. Pulse 124. Three to 4 ounces of pus escaped from cavity when patient put on hands and knees. Gradual improvement, respirations and temperature becoming normal. Quantity of pus became less, and escaped freely when patient held in prone position. Never any expectoration of blood or pus. Chest examination on 77th day, right lung resonant all over and air entering well. Expiration still tubular in character in places. No adventitious sounds. Right chest moves somewhat less well than left. Liver edge reaches to just above umbilicus. No signs in chest were detected on 89th day. Sinus healed by 92nd day. Discharged cured on 115th day after admission.

Implantation cyst of leg.—A. M.—, male, æt. 14. Printer. Has had several falls on to leg. Small tumour noticed over patellar ligament for seven years. Gradual increase. No pain. On examination, tumour size of small hazel nut over left patellar ligament. Hard and freely moveable. Not attached to skin or bone. No fluctuation. Excision. On section, cystic containing sebaceous material. Microscopically it consisted of firm fibrous walls lined by a layer of stratified epithelium, with well-marked stratum granulosum. Discharged cured on 7th day.

Ovarian cysts.—Females 7. C. 4, R. 1, D. 2. Double 1; suppurating 1; twisted pedicle 1. Firm adhesions in 1. Papilliferous 2. Appendicitis 1.

Treatment.—Ovariectomy 5; incision and drainage 2.

Fatal cases.

1. C. P.—, female, æt. 69. Widow. Swelling of abdomen noticed 2 months. Slight increase. Bearing-down pain. Increased frequency of micturition. On examination, abdomen prominent. Fluctuating tumour in middle line. *Per vaginam*, uterus small and tumour adherent to posterior aspect. Cœliotomy on 2nd day. Tumour removed, closely adherent to uterus below, so that portion left behind. Drainage-tube inserted. Tumour multilocular; cysts contained

brownish fluid. Much friable material in walls of cysts, which presented a papilliferous appearance in places. Temperature subnormal after operation. Pulse increased from 90 to 132. Vomiting on 2nd day. Abdomen became distended and tender. Death on 6th day. P.M.—General early peritonitis. Pedicle healthy. Nodule of white growth, size of walnut, in Douglas's pouch. Hæmorrhagic endometritis. Lungs emphysematous; obsolete tubercle in left. Pericardial adhesions. Atheroma of mitral valve. Large infarct in spleen. Kidneys slightly granular.

2. A. D—, female, æt. 28. Married. Attack of pelvic cellulitis following parturition 10 months before admission. Swelling presented in ischio-rectal region, and was incised at Charing Cross Hospital. Sinus persisted. Admitted for sinus. On examination, cervix fixed on right side, with thickening over lateral pelvic wall, extending downwards around sinus. Probe passes for 4 inches along sinus. Sinus explored on 7th day, ran into pocket situated towards right lateral wall of vagina, and another just behind symphysis pelvis; scraped and plugged. Discharged on 51st day with sinus almost healed. Readmitted 3 months later; sinus completely closed. Nine days before admission, during menstruation, severe abdominal pain, with fever and vomiting; pain continued. On examination *per vaginam*, uterus moveable and normal; to its right was a hard, irregular, flattened mass, separated by a sulcus admitting the finger from the uterus, and attached to the pelvic wall externally; capable of slight antero-posterior movement. Tumour thought to be inflamed. Appendages adherent to back of broad ligament, and independent of previous sinus. Slight evening fever. Cœliotomy on 30th day. Adhesions found around vermiform appendix, which was removed. Catarrhal inflammation present. Cyst of right ovary, size of Tangerine orange, and containing recent blood, removed. Adherent to posterior pelvic wall. Sickness and abdominal pain on day following operation. Evidence of peritonitis. Rigor, with temperature of 104.2° before death on 33rd day. P.M.—General suppurative peritonitis. Broad adhesions binding uterus to sigmoid flexure and rectum. Close to the cervix uteri was a ragged hole, the anterior wall of the rectum having given way at the site of a separated adhesion. Hole 6 inches from anus; bowel wall softened in neighbourhood. Old pelvic cellulitis on right side. Liver fatty. Cloudy swelling of kidneys.

Broad ligament cysts.—Females 4. C. 3, U. 1. Ovarian cyst 1; fibro-sarcoma of wall 1. Excision 2; partial excision 1; cœliotomy 1; cyst very moveable 1; papillomatous 1.

Cyst of broad ligament; fibro-sarcoma of wall.—F. H—, female, æt. 34. Two years before admission pain in the right iliac region, with appearance of swelling; gradual increase in size, with attacks of intermittent pain. On examination, abdomen much distended, more marked on the right side, where there is also more resistance. Dulness on percussion to above umbilicus, with resonance in the flanks. Tumour fluctuates, and a fluid thrill can be obtained. *Per vaginam* the uterus is drawn up and strongly anteverted; the os is level with the vaginal roof; the abdominal tumour does not extend into the pelvis. Median cœliotomy on 2nd day. Cyst multilocular and extremely adherent, and extended deeply into the pelvis. Uterus could not be detached from the tumour, and it, together with the appendages, was removed, the stump being

treated extra-peritoneally. A marine sponge was left behind, the condition of the patient being such that a lengthy search was out of the question. After removal it was found that one large cyst, the size of a football, had burrowed between the layers of both broad ligaments. In the walls of this cyst were numerous firmer bodies, presenting a concentric fibrous appearance; a large number of these were undergoing cystic degeneration, the condition in some being more advanced than in others; others, again, lay separate from the main cyst. The uterus contained numerous intra-mural and subperitoneal fibroids. Both ovaries were normal, with the exception of one or two small cysts, and were separated from the main cyst by at least an inch. Microscopically, pathologist reports that the solid bodies in the wall of the cyst were fibrosarcoma. Progress was fairly satisfactory. The *serre-nœud* came away on the 12th day. The wound suppurated, the discharge becoming offensive. Examination under an anæsthetic on the 36th day disclosed the presence of a mass in the pelvis, and was followed by the escape of small pieces of sponge. Discharge became less offensive, and contained small fragments of sponge at intervals. The sinus persisting, it was examined under an anæsthetic on the 114th day. A silk ligature was removed, and the orifice of the sinus then enlarged; no trace of the sponge could be found. The peritoneum was opened during the manipulations, and the rent shut off by gauze plugs. The temperature rose in the evening to 102.6° , and patient complained of abdominal pain and tenderness, due to a localised attack of peritonitis on the right side; this was treated by hot fomentations, and by injections of antistreptococcus serum on the 2nd and 3rd days after the operation. The pulse rate, which had risen to 132, gradually fell, and the temperature reached normal on the 9th day. The further progress was satisfactory, and she was sent to a convalescent home on the 149th day with a small sinus still persisting. An attack of diphtheria occurred on the 58th day.

Tumours, nature undetermined.

Pulsating proptosis.—C. L—, male, æt. 56. Shipwright. Fracture of left occipital bone at age of 17. Syphilis 25 years ago. Three months before admission he suffered with pain and stiffness of neck, which is still persistent slightly. Severity gradually diminished, and was followed by pain in front of left ear 3 weeks later, which lasted 3 to 4 weeks, and then vanished. As the pain went the left eye began to water and get red, and was noticed to be getting forwards. Six weeks before admission pain was felt at back of globe, increased by stooping. Has had throbbing noise in head, with double vision at the same time, one object appearing above the other. No giddiness, sickness, or headache. Attended Royal London Ophthalmic Hospital. On admission, the left eye is markedly proptosed, upper lid inflamed and red; vessels of sclerotic are injected. Eye pulsates synchronously with the pulse. No bruit heard (this was present at Moorfields). Tension equal in both eyes. Occasional double vision, one impression appearing above and to the left of the other. Movements of globe impaired, particularly upwards. Pulsating flat tumour size of a five-shilling piece, situated behind outer angle of orbit, with its lower margin just encroaching upon Reid's base line. No bony ridge at margin of swelling. Pressure here increases the proptosis. Pulsation ceases when common carotid compressed. Heart-sounds feeble. Urine 1022; albumen, no sugar.

Increase in size of tumour, and of proptosis. Digital compression of common carotid on 22nd day for 15 minutes and daily for 5 days; tumour continued to increase. Complains of rheumatic pains in back. 38th day, proptosis and swelling greater; œdema of conjunctiva; movements of globe less. Examination of fundi under atropine; veins of left are distinctly more tortuous and distended than those of right. Short streak of hæmorrhage along upper nasal vessels, between the artery and vein. 53rd day, throbbing noise in left ear; bruit heard over tumour. Left pupil smaller than right. Œdema of conjunctiva increased. Vision of left eye diminished. 57th day, ligation of left common, internal and external carotid arteries; floss silk used for ligatures; coats of vessels not divided. Pulsation ceased, but returned 2 days later. Discharge from left eye. Proptosis was reduced, but increased again before discharge on 75th day.

Tumour of liver.—1. G. W—, male, æt. 26. Shopman. Family history good. Syphilis 3 years ago. Sudden acute pain in abdomen at level of umbilicus 3 weeks before admission. Pain relieved by rest and treatment. Pain returned, and tumour discovered in abdomen. No vomiting. On examination, ill-defined tumour bulging the abdominal wall slightly forwards in left hypochondriac and epigastric regions, extending almost to the umbilicus, and upwards beneath the costal margin. Firm and slightly tender. Moves slightly with respiration. Dull to percussion. Exploratory cœliotomy on 6th day; liver slightly enlarged, and adherent to anterior abdominal wall. Firm whitish-grey tumour in left lobe encroaching upon anterior and inferior surfaces. Tumour thought to be probably gummatous. Incision closed. Pot. Iod. given. Slight diminution in size of tumour on discharge on 21st day.

2. L. B—, female, æt. 70. Three months before admission noticed a swelling the size of a hen's egg in right lumbar region, which has rapidly increased with some pain. Increased frequency of micturition, and urine has become offensive. No renal colic. Constipation. No emaciation. On examination, rounded tumour in right side of abdomen about size of coconut, extending from above the umbilicus to the level of the anterior spine of the ilium; elastic; does not fill up the loin as a kidney tumour should. Resonance between tumour and costal margin. Moves with respiration, and laterally; thickened cord can be felt extending downwards from lower margin. Urine acid, contains albumen. Bladder examined by Kelly's method on 4th day; thickening of right ureter found. Slight jaundice and vomiting on 8th day; jaundice rapidly became intense, with bile pigments in urine. On the 11th day a separate distinct nodule could be felt between the main tumour. Stomach was prolapsed and dilated. Left kidney palpable, and its surface nodular. Vomiting continued. Area of resonance between tumour and costal margin disappeared. Temperature rose on 11th day to 103°, and from this day there was irregular fever. Patient later became weaker, with increase of jaundice, much pain and vomiting, and died on 28th day. P.M.—Omentum firmly adherent to subjacent organs. Liver enlarged, and tumour arising from its lower margin, which filled the right half of the abdomen. Anterior surface of liver adherent to diaphragm and abdominal wall. Deep transverse sulcus crossed the right lobe of liver immediately below the costal margin, cutting off

a large tongue of liver, which had a convex upper surface, and was spread out over a large white mass, and gradually thinning off until the mass was left uncovered by liver substance. Incision made into mass disclosed large thick-walled cyst filled with blood-stained pulpy *débris*; the duodenum lay in the wall of the cavity. The mass started in the left of the right lobe, and reached nearly to its right margin; at the circumference were firm white nodules, some of which were beginning to break down. Bile-ducts widely dilated, and filled with bile; the liver was breaking down around many of them. No gall-stones. Small gut collapsed, and large dilated; no growth. Stomach dilated. Congenital constriction at junction of pharynx and œsophagus. Chronic interstitial nephritis, with whitish nodule in right kidney filled with putty-like reddish *débris*, which was surrounded by a distinct cyst wall. Microscopically no trace of new growth could be found; encircling the cavity was a layer of amorphous *débris*, and outside this a well-formed layer of fibrous tissue. Liver extensively cirrhotic, the columns of liver cells separated as well by young fibrous tissue.

DIGESTIVE SYSTEM.

Stricture of pylorus.—M. J—, female, æt. 45. History of dyspepsia for 20 years, with sickness for last 10. During the 3 months preceeding admission patient has had almost constant vomiting. Vomiting two hours after meal; vomited material consisted of altered food, with either coffee-coloured, thick, slimy fluid or streaks of dark-coloured blood. Abdominal pain after food; relieved by vomiting. Occasional sharp attacks of pain. Constipation. Emaciation. On examination, abdomen prominent in upper part, the prominence extending downwards from the costal margin to 2 inches below the umbilicus; more marked on the left side. Percussion note tympanitic over this area. *Bruit d'airain* obtained. No succussion splash present. Hard, smooth tumour felt slightly to the right of the middle line. Vomiting and abdominal pain persisted after admission; vomit coffee-ground. Lavage of stomach instituted on 4th day; 5 pints of fluid could be passed into the stomach. Diet restricted of fluids as much as possible. Size of stomach diminished. 6th day, stomach held 3 pints of quinine solution. No vomiting. Thirst relieved by saline injections *per rectum*. 15th day, has gained 8½ lbs. in weight during last week. 30th day, has gained 1 stone 3 lbs. in weight since admission; attack of diarrhœa and vomiting. 34th day lost 9 lbs. in weight. Median cœliotomy on 34th day. Stomach appeared of normal size, but presented highly injected points over the lesser curvature, with puckerings of the surface; coat was thickened here. Pylorus appeared to have an external diameter of 1½ inches, and was soft. Gastro-hepatic omentum studded with a large number of soft glands. Incision made longitudinally just to left of pylorus; pylorus admitted little finger, with thin fibrous band encircling the orifice; no ulceration felt in stomach, pylorus divided, and incision brought together transversely to long axis of stomach by stitches through all coats of stomach, passed by Halstead's method, with few reinforcing Lembert sutures. Wound closed. No shock. Vomiting from anæsthetic. Rectal feeding for 9 days. Beef juice given by mouth on 4th day. Progress satisfactory. No vomiting. No evidence of enlargement of stomach on discharge on 58th day.

Hernia.

Reducible inguinal.—Males 130, females 15. C. 126, R. 10, U. 8, D. 1. Congenital 23; funicular 4; infantile 1; direct 1; scrotal 1; double 16; recurrent 7; varicocele 4; undescended testis 4; phimosis 2; hydrocele 2; morbus cordis 1.

Treatment.—Bassini's operation 26; Kocher's 22; Macewen 6; Halstead 4; ablation of sac and suture of pillars 58; sac ablated 5; suture of canal only 4; truss 3; refused operation 1.

Fatal case.—W. L.—, male, æt. 27. Hæmorrhage. (*Vide* Table of Recurrent Herniæ.)

Irreducible inguinal.—Males 15. C. 9, R. 3, U. 2, D. 1. Hydrocele 1; varicocele 1.

Treatment.—Kocher 1; Halstead 1; ablation of sac and suture of pillars 8; hot bath and ice-bag 2; truss 1; "at own request" 1.

Fatal case.—J. E.—, male, æt. 34. Porter. Irreducible inguinal hernia of 9 years' standing. Radical cure on 2nd day; sac ablated with silk; pillars sewn with horsehair. Hiccough and distension of belly after operation. Wound opened up into abdomen, and large quantity of blood removed; no bleeding point discovered. Gradually failed. Death on 6th day. P.M.—Fluid blood in abdomen. No peritonitis, but gut distended, and portion which had been engaged in hernia congested. Kidneys large and very soft. Capsule stripped with difficulty; substance pale and dotted over with small cysts. Liver fatty.

Reducible femoral.—Male 1, females 5. C. 4, R. 1, U. 1. Ablation of sac with pectineal fascial flap 3; ablation of sac with suture of ring 1; truss 1; coxa vara 1; chronic renal 1.

Irreducible femoral.—Male 1, females 6. C. 5, U. 1, D. 1. Recurrent 1; double 1; ulceration of sac only 2; ablation of sac and suture of ring 2; ablation of sac and pectineal fascial flap 1; ablation of sac with flaps from external oblique 1.

Fatal case.—E. W.—, female, æt. 52. Irreducible right femoral hernia of 8 years' standing. Ablation of sac and suture of ring with silk on 2nd day. Ether used as anæsthetic. Temperature rose to 103° after operation, and remained at that level; rapid respiration and muttering delirium. Death on 7th day. P.M.—Double pleurisy and pneumonia of both lower lobes; upper lobes emphysematous. Cardiac muscles and liver fatty. Chronic mixed nephritis. Peritoneal cavity normal.

Reducible ventral.—Males 2, females 6. C. 5, R. 1, U. 2. Previous cœliotomy 4; sac ablated and fascia sewn 5; appendectomy 1; truss 1.

Irreducible ventral.—Females 2. C. 2. Previous cœliotomy 2; sac ablated and fascia sewn 2.

Reducible umbilical.—Male 1, female 1. C. 1, R. 1. Sac ablated and fascia sewn 1; truss 1.

Irreducible umbilical.—Male 1, females 7. C. 5, R. 3. Sac ablated and fascia sewn 5; truss 1; hot bath and ice-bag 2.

Prevesical.—Male 1. C. 1. See 'Med.-Chir. Trans.,' 1899.

For *Strangulated hernia*, see Special Table I.

Acute appendicitis.—Males 7, females 2. C. 7, D. 2. Abscess in fossa 5; in loin 2; general peritonitis 2.

Treatment.—Incision of abscess 5; cœliotomy and irrigation 3; amputation of appendix in 3 cases. (*Vide Medical Society's "Transactions," 1899, for case of recovery with general peritonitis.*)

Fatal cases.

1. H. E—, male, æt. 21. Labourer. Pain in abdomen 6 days, with vomiting the day preceding admission. Constipation. Admitted with distended abdomen, tenderness more marked on right side; immobility. Pulse rapid. Urine, trace of albumen. Cœliotomy in right iliac region; localised abscess found towards inner part of iliac fossa, containing several ounces of offensive pus. Appendix found perforated; amputated. Drainage-tube inserted. Death in few hours. P.M.—Localised abscess cavity in right iliac fossa. Second limited area of suppurative peritonitis in left side of pelvis quite separate from first described; walled in by adhesions. Organs healthy.

2. K. M—, female, æt. 12. Vomiting and abdominal pain for 6 days. Admitted with immoveable, distended, and tender abdomen. Dulness in flanks. Liver dulness obliterated. Sunken face. Rapid pulse. Cœliotomy in right semilunar line; general peritonitis; gut very distended and congested; peritoneal coat split in places. Appendix found gangrenous, with perforation at tip; removed. Abdomen irrigated. Gut replaced after puncture and drainage. Death in 2 hours. P.M.—Abdomen contained 8 ounces of blood-stained serum. Intestines distended and much discoloured. Small gut thickened by inflammatory effusion. Mucosa peeling off in places, and many hæmorrhages into gut walls. Little lymph on gut. Bowel contained blood-stained fluid. Abscess cavity in pouch of Douglas. Right ovary and tube adherent to brim of pelvis. Kidneys swollen; cortices of a dull yellow colour.

Chronic appendicitis.—Males 33, females 14. C. 43, R. 3. Interval after 1st attack 17; 2nd attack 8; 3rd attack 4; 4th attack 3; 5th attack 2; 6 or more attacks 13; not stated 2.

Treatment.—Incision adopted, McBurney's 31; through rectus sheath 7; semilunar line 5. Appendix showed old perforation 1; concretions 5; obliteration of portion of lumen 4; stricture 10; catarrhal in remainder.

Perforated gastric ulcer.—J. H—, male, æt. 47. Labourer. History of dyspepsia for 2 years. No hæmatemesis. Thirty-six hours before admission sudden acute pain in abdomen while lifting a barrow. Pain diffused, but more intense at umbilicus. Walked home. No vomiting. Admitted with rigid and distended abdomen. Resonant all over; liver dulness obliterated. Cœliotomy through right rectus muscle above umbilicus; subperitoneal fat œdematous. Ulcer found on anterior surface of stomach, close to pylorus. Ulcer crater-like; actual perforation about $\frac{1}{4}$ inch across. Stomach wall excised for about $\frac{1}{2}$ inch on either side of perforation, closed by a continuous silk stitch through all coats, with interrupted layer of Lembert stitches. Intense general peritonitis, with much lymph. Intestines turned out and freely irrigated; also abdomen, which was afterwards cleansed with sponges. Gauze drain to stomach and into pelvis. Infusion of 3 pints of normal saline into vein; effect transitory. Death in 6 hours. P.M.—General peritonitis, though most of the exudate removed; upper

surface of left lobe of liver covered with lymph. Large collection of blood-stained fluid around the spleen. Ulcer had been completely excised. Liver swollen and friable. Kidneys swollen and hyperæmic. Spleen moderately enlarged, and not very soft. Slight excess of fluid in pericardium.

Perforated duodenal ulcer.—A. M—, male, æt. 39. Carman. Admitted for acute abdominal pain of 3 days' duration. On examination, abdomen distended and rigid. There was no adventitious dulness in abdomen, but the liver dulness was gone in front of the nipple line. Temperature 101°. Pulse 130. Slight jaundice. Abdomen opened through right rectus at level of umbilicus. Fluid and air escaped, together with a quantity of yellow fluid and clots of milk. There was much thickened and puckered omentum. A small hole was found in the duodenum after a difficult search, which was sutured with thick silk through all the walls. Much lymph on the intestines about the parts involved. Much fluid in pelvis, but intestines only showed some small points of injection. Gut somewhat distended, but were allowed to escape, and the abdomen cleaned with irrigation and the gut as well. Wound closed with gauze drain to ulcer. The next 2 days there was much bile vomited, but pulse and respiration fell to 108 and 36 respectively; temperature also fell to normal, and remained so, and whole condition of the patient improved. The rectum was much loaded, but castor oil produced a large stool. Abdomen became flaccid, and moved with respiration on the day after operation. Wound became infected, and all the edges sloughed. Food given by mouth on 3rd day after operation, and gradually increased. Progress good until the 8th day, when patient had an attack of vomiting in the morning, but pulse was only 100. In the evening pulse rose to 108, and extremities became cold and features pinched. Patient rapidly sank, and died on 9th day. The amount of urine passed was about 30 ounces on each separate day. P.M.—The ulcer was securely sewn up. There was general plastic peritonitis over the whole abdomen, but very little fluid, although there had been no drain. The ulcer was situated just to the duodenal side of the pylorus, whose wall was a little thickened; the ulcer was thought to have been acute. There was a scar of an old healed ulcer here, and on the other side of the pylorus were four recent shallow ulcers.

Matting of small gut.—Females 3. C. 1, D. 2.

Treatment.—Cœliotomy and separation of adhesions.

M. W—, female, æt. 13. Swelling noted in left iliac region 7 months before admission; appearance accompanied by pain and vomiting. The tumour disappeared, and was noted again 4 months later; since that date it has been seen on one or two occasions. On examination, nothing could be detected in the abdomen; examination *per rectum* under an anæsthetic revealed an indefinite tumour on the left side of the pelvis. Cœliotomy through the right rectus on the 9th day. All the small gut was found to be closely matted together by fine adhesions, which were unravelled; there was no evidence of tubercle. Paralytic distension of gut relieved by simple enema. Progress satisfactory, but bowels did not act without the exhibition of purgatives. Discharged cured on 27th day.

Matting of small gut; intestinal obstruction.—1. R. Y—, female, æt. 37. Both Fallopian tubes removed two years ago in Adelaide; has menstruated

regularly since then. Abdominal pain and sickness for 2 days; constipation for 3 days. Admitted with typical peritoneal facies. Abdomen distended and resonant; immovable. Cœliotomy through right rectus; bloody serum escaped; distended small gut presented, which was fixed by band to right of and behind uterus; band torn through, and loop or two of small gut closely matted together brought to the surface. Adhesions unravelled. Abdomen closed. Never rallied. Temperature rose to 104° . Death in 6 hours. P.M.—8 ounces of blood-stained serum in pelvis. Omentum firmly adherent to scar of first operation. Lowermost coils of small gut showed patches where adhesions had been stripped. Bowel no longer obstructed; contained a blood-stained fluid. No distinct evidence of peritonitis. Both Fallopian tubes had been removed, and also the right ovary. Uterus double the normal size.

2. E. E—, female, æt. 51. Married. Large cystic adenoma of ovary removed 3 years ago; the bowel was then much matted. Admitted with a week's history of acute obstruction; abdomen distended. Cœliotomy and adhesions separated. Death in few hours. P.M.—Gut much injected, with some clotted blood in pelvis; no peritonitis. All adhesions had been divided save one broad one. Upper 4 feet of small intestine were hypertrophied and dilated; the adhesions began below this point, and the marks of their attachment were found every 6 or 8 inches. Adhesions ceased about 3 feet above cæcum, and here the gut was contracted. Interstitial fibroid. Right kidney atrophied, the left somewhat large; both capsules adherent, but no marked diminution of cortex. Lungs congested and œdematous.

Intussusception.—Males 2. D. 2. Ileo-cæcal 1; multiple of small gut 1.

Treatment.—Cœliotomy and reduction 2.

Fatal cases.

Multiple intussusceptions.—1. J. C—, male, æt. 3. Passage of blood *per rectum*, with constipation for 2 days. No vomiting, pain, or shock. Admitted with flaccid abdomen; no tumour felt. Cœliotomy in right semilunar line; no intussusception found. Incision to left of umbilicus, through rectus muscle. Intussusception of small gut found about 4 inches long; reduced by manipulation. Higher up in the small gut four similar but smaller intussusceptions found; reduction. Gut began to distend after reduction. Intestines much handled. Operation lasting 45 minutes. Death from shock. No P.M.

2. V. A—, male, æt. 1 year. Sudden screaming attack 24 hours before admission, followed by vomiting. Attempted reduction of intussusception by inflation; passage of blood. On admission, child collapsed, with sunken eyes. Tumour felt in right side of abdomen. Cœliotomy through right semilunar line. An intussusception was found of small intestine into small, and the whole into large intestine; reduction by manipulation. Temperature rose to 103.2° . Death in few hours. P.M.—No blood or signs of peritonitis in the abdomen. Lower 8 inches of ileum, with cæcum and few inches of colon congested, of purplish colour. Wall of gut congested and œdematous, the follicles being particularly involved, standing out as in the earlier stages of enteric fever. Little superficial ulceration. Appendix thickened with hæmorrhages in its mucous membrane.

Hepatic abscess.—Males 3. C. 1, D. 2. Multiple 1.

Treatment.—Incised through pleura 1; through abdominal wall 1.

Fatal case.—C. P—, male, æt. 31. Cook. Four months before admission, while in China, attack of dysentery lasting 2 weeks, with another attack 3 weeks later lasting a month. He became jaundiced, and the liver was enlarged. On admission, liver dulness extended from 5th rib to the level of the umbilicus, in the nipple line, with bulging of the anterior abdominal wall. Spleen enlarged. Temperature 100°. Incision in right semilunar line on 2nd day; liver enlarged, and presented one or two yellow patches, gauze introduced down to liver; on the 6th day the liver was adherent, and the peritoneum shut off; an abscess containing 48 ounces of chocolate-coloured pus was opened. Progress was satisfactory until the 61st day, when the temperature rose to 104.4°, and discharge became offensive. The temperature continued high, and the discharge became more offensive. Diarrhoea controlled by astringents, and starch, and opium enemata; he also had creolin enemata. Irregular fever continued, and patient became weaker, and died on the 36th day. The discharge from the liver abscess contained in the later stages large quantities of disintegrated liver cells. The urine varied from 45 ounces to 7 ounces on the day before death. P.M.—Slight adhesive peritonitis beneath the under surface of the liver, and round the head of the right kidney. Liver greatly enlarged, and anterior surface closely adherent to diaphragm. The lower lobe of the right lung was collapsed, and there was slight recent adhesive pleurisy. Scattered throughout the liver were a number of whitish masses beginning to break down into pus, and presenting a honeycombed appearance; some of these areas had already broken down, and one of these had been drained. Few whitish areas in left lobe of liver; no abscesses. Cloudy swelling of kidneys. Few small ulcers in the colon, with one in the small gut, and also in the rectum; small and discrete, edges raised, and base composed of the muscular coat of the bowel.

Cholelithiasis.

Cholelithiasis; empyema of gall-bladder.—1. F. W—, male, æt. 30. Insurance agent. Attack of biliary colic 3 months before admission, which recurred on three occasions since, and then accompanied by vomiting. Attacks lasted from 1 to 5 days. Has been slightly jaundiced. Urine and fæces not altered. On admission, tender swelling in right hypochondrium, extending nearly to level of umbilicus; moving with respiration. Conjunctivæ slightly tinged. No bile pigment in urine. Vomiting after admission. Operation on 5th day; incision through right semilunar line; lesser omentum matted and adherent to liver, foramen of Winslow obliterated; adhesions separated; gall-bladder ruptured during process; rent plugged; incision prolonged transversely to left. Aspiration of gall-bladder withdrew 4 ounces of pus; incision enlarged, and 3 cholesterine stones about size of cherry removed. Tube into gall-bladder, and gauze plug to shut off peritoneum. Progress satisfactory. No discharge of bile. Discharged cured on 31st day.

2. S. F—, female, æt. 54, married. Two attacks of biliary colic 5 months and 5 weeks respectively before admission. Vomiting, jaundice, and pigmentation of urine. On admission, moveable tumour beneath right costal margin. Liver not enlarged. Urine normal. No jaundice. Chole-

lithotomy on 7th day; vertical incision through rectus muscle. Gall-bladder much thickened; contained pus, and 67 small cholesterine stones removed with scoop. Larger stone, size of small cherry, in cystic duct manipulated into gall-bladder and removed. Ulcer on wall of bladder excised; microscopically it was a simple ulcer. Gall-bladder sutured to abdominal wall. Discharge of pus followed by bile after operation, which rapidly ceased. Discharged without sinus on 27th day.

Obstruction of cystic duct.—1. E. L—, female, æt. 42, widow. Mother died with jaundice. Recurrent attacks of biliary colic, with vomiting and jaundice, for 6 years. First attack followed confinement. Last attack 4 days before admission. Cholelithotomy. Gall-bladder contained about 2 ounces of bile, with 1 flat cholesterine gall-stone $\frac{1}{8}$ inch by $\frac{1}{8}$ inch, and weighing 120 mgs. Cystic and common ducts patent. Discharge of bile, which gradually lessened in amount. Discharged with small sinus on 39th day.

2. R. G—, female, æt. 14. Intermittent attacks of pain in left lumbar region, at times acute and resembling attacks of renal colic. Urine has been thick and sometimes "black." No passage of gravel or bright blood. On examination, resistance to palpation in left loin; kidney not felt. Skiagram showed indistinct opacity in region of kidney. Urine normal. Kidney explored and incised; no stone detected. Examination of bladder revealed no disease. Discharged on 29th day. Readmitted later on Medical side for acute attacks of abdominal pain; transferred to Surgical side. Attacks of pain continued; attack starts by pain referred to the umbilicus, and radiating in all directions, severe enough to double the patient up and necessitating the exhibition of morphia. Nausea and headache. Urine contained albumen and blood. Median cœliotomy on 11th day; nothing detected in kidneys, but gall-stone felt. Cholelithotomy. Stone size of small marble; consisted of cholesterine, with traces of bile pigment and calcium carbonate. Discharge of pure bile. Progress satisfactory. Discharged cured on 64th day.

3. J. E—, male, æt. 58. Lithographic printer. Admitted on Medical side in September, 1897, with attack of biliary colic. Liver reached from 5th costal cartilage to 2 inches below the costal margin; gall-bladder also enlarged. Cholelithotomy; 3 large cholesterine calculi removed. Discharged without sinus in December, 1897. Seven days before admission—in March, 1898—great pain over scar of former operation, which broke down and discharged bile. Discharge profuse and continued. Sent to convalescent home on 42nd day. Readmitted 4 months later. One month before admission fistula closed, and patient became jaundiced a week later. Stools clay-coloured. Urine pigmented. Vomiting. Urticaria. On examination, marked jaundice; liver edge $\frac{1}{2}$ inch below costal margin. Cholecystotomy on 10th day; no stones found; probe passed $3\frac{1}{2}$ inches. No diminution in jaundice. Fistula persistent. 33rd day, cœliotomy; no stones found; indurated thickening about head of pancreas. Gradual failure. Death on 42nd day. No P.M.

4. C. J. L—, female, æt. 24. Married. Attacks of biliary colic; swelling noticed in right hypochondrium 1 year before admission. Cholelithotomy performed at Richmond Hospital, Dublin; sinus persistent. On examination, sinus 4 inches below costal margin, discharging bile, with definite hard nodule to be felt below sinus. Liver not enlarged. Attacks of pain and sickness. Urine pigmented.

No jaundice. Cholelithotomy on 17th day; gall-bladder atrophied and adherent; contained 1 gall-stone. Calculus felt in cyst duct at junction with hepatic ducts; cystic duct opened, and stone about size of pigeon's egg removed. Discharge of bile varied from 22 ounces to 4 ounces per diem, gradually diminishing. Progress satisfactory until 40th day, when persistent sickness, with mental disturbance—*i. e.* noisy delirium and removal of dressings. Gradual failure. Death on 43rd day. P.M.—Common duct dilated and freely open into duodenum. Liver normal. Kidneys, cortex wide, with white streaks in places.

GENITO-URINARY SYSTEM.

Stricture.—Males 65. C. 49, R. 7, U. 4, D. 5. History of trauma in 4; discharged at own request 5.

Situation.—Penile 3; penile and bulbous 8; bulbous 25; membranous 15; not stated 10.

Complications.—Retention of urine 16; fistula 10; abscess 6; extravasation 6; epididymitis 2; phthisis 1.

Treatment.—Dilatation 25; external urethrotomy 17; internal urethrotomy 3; incision 12; Cock's perineal puncture 5.

Fatal cases.

1. R. C—, male, æt. 45. Erysipelas. (*Vide* Special Table I.)

2. C. P—, male, æt. 64. Gonorrhœa 45 years ago. Stricture 14 years. Frequency of micturition, with offensive urine for 3 months. Occasional dribbling. Has passed catheter for 10 years once a week. Retention relieved by hot bath. Penile and bulbous stricture. Enlarged prostate. Urine ammoniacal. Emphysema. Moist sounds and diminished resonance at bases. Sounds passed on 14th day. Rigor followed. Temperature remained high, averaging 103° to 105° , until death on 24th day. P.M.—Bladder hypertrophied and dilated. Acute on chronic cystitis. Ureters dilated, and also pelvis. Suppurative nephritis. Cortex narrowed. Capsules adherent. Emphysema. Edema and congestion of lung bases.

3. T. V—, male, æt. 63. Porter. Stricture 30 years. Increasing difficulty, frequency of micturition, and diminished size of stream passed for 1 month. Stricture penile and bulbous. Albuminuria. Rigor followed attempt to pass catheter; rigor repeated on second attempt. Attempts to pass sounds under anæsthesia on 12th day failed, and temperature rose to 105° , with a rigor. Irregular high fever persisted until death. Perineal abscess developed on 20th day. Incised and Cock's puncture performed. Boracic baths given. Tongue became dry and brown. Restlessness and delirium at night controlled by chloral. Diarrhœa. Wounds granulated well. Increasing weakness necessitated the discontinuance of the boracic baths. Semi-coma gradually deepening for 4 days preceding death on 37th day. No P.M.

4. J. B—, male, æt. 61. Gardener. Gonorrhœa 40 years previously. Difficulty of micturition for 5 years. Admitted with impermeable stricture in the bulbous urethra. Cystitis. Double aortic disease. Sounds passed under anæsthesia on 7th day. Rigors after operation, repeated on the two following days, and then temperature became subnormal. Vomiting. Urine diminished, and then increased in amount. Cough and increasing weakness. Death on 13th day. P.M.—Mucosa of prostatic urethra tunnelled by false passages.

Prostate much enlarged, chiefly middle lobe, with hæmorrhage into its substance. Chronic cystitis, with hypertrophy of bladder. Ureters dilated. Right pyonephrosis, with purulent foci in remains of cortex; left kidney in similar condition, but less marked. Old peritonitic adhesions. Dense pleural adhesions, with atrophic emphysematous lungs. Aortic regurgitation, with hypertrophy of left ventricle.

5. C. M. C—, male, æt. 50. Retention and incontinence of urine for 18 months. Catheter passed 14 days before admission, urine then contained pus; passage followed by rigors. Fever after admission, followed by subnormal temperature. Rapid failure. Death on 8th day. P.M.—Stricture of membranous urethra. Pyelitis and suppurative nephritis. Cystitis. Liver fatty. Aortic atheroma. Heart muscle fatty.

Enlarged prostate.—Males 20. C. 1, R. 15, D. 4.

Complications.—Retention 12; cystitis 4; stricture 1; hæmaturia 4.

Treatment.—Prostatectomy 1; vasectomy 2; supra-pubic 6; catheterism in remainder.

Fatal cases.

1. G. G—, male, æt. 75. Admitted with retention of 4 days' duration. Bladder reached to umbilicus. Catheterism impossible. Supra-pubic cystotomy. Temperature rose to 103°. Signs of bronchitis in lungs. Noisy delirium at night. Gradually increasing weakness. Death on 5th day. P.M.—Prostate generally enlarged. Bladder of normal size. Mucosa somewhat thickened, with slight hypertrophy of muscular coat. Right pleural adhesions over diaphragm. Emphysema and œdema of lungs. Aortic atheroma.

2. E. F—, male, æt. 68. Gunloader. Difficulty of micturition, and frequency for 25 years. Incontinence of urine 8 years ago. Pain and dribbling of urine for 9 days. Catheter passed easily. Severe cystitis. Temperature averaged 98° to 100°. Cystitis relieved by irrigation with boracic lotion. Hyaline casts noted in urine. Diarrhœa. Increasing weakness. Death on 12th day. P.M.—Prostate generally enlarged, especially the middle lobe, which formed a prominent tumour. Chronic cystitis. Kidneys of normal size. Capsules non-adherent. Multiple small abscesses throughout organ. Pelvis injected, and contained thin pus. Left pleural adhesions. Lungs œdematous, with areas of broncho-pneumonia. Aortic atheroma.

3. J. G—, male, æt. 79. Carpenter. Admitted with retention. Delirious; no history obtainable. Stricture at bulb. Prostate enlarged *per rectum*. Supra-pubic cystotomy. Cystitis. Noisy delirium. Restlessness. Gradually failed. Death on 10th day. P.M.—Supra-pubic wound sloughy; suppuration in abdominal wall. Mucosa of bladder thrown into rugæ, the summits of which were vascular, and coated with lymph. Muscular coat hypertrophied. Prostate generally enlarged. Suppurative nephritis in left kidney; right normal. Other organs healthy.

4. J. L—, male, æt. 72. Hatter. Admitted for sloughing ulcer of scrotum following on a kick. On examination, sloughing ulcer of scrotum. Bronchitis. Atheromatous arteries. Chest trouble increased. Became delirious and gradually failed. Death on 9th day. P.M.—Suppurative nephritis more marked in right. No evidence of cirrhosis. Pelvis dilated and deeply injected;

small diphtheritic sloughs in recesses in calyces. Ureters dilated and tortuous, especially the right. Bladder greatly hypertrophied. Prostate equally enlarged. Abscess in right lateral lobe. Lungs emphysematous. Edema and congestion of bases. Marked atheroma of cerebral arteries.

Tuberculous bladder.—Males 4, females 4. R. 7, D. 1. Supra-pubic cystotomy 1.

Fatal case.—L. B—, female, æt. 40. Nine months' history of pain in bladder and back, worse when bladder full, relieved after micturition. Occasional acute attacks of pain. Cystitis. On examination, right kidney enlarged slightly and moveable. Urine acid, $\frac{1}{6}$ albumen; pus and tubercle bacilli present. Pain and frequency of micturition during rest in bed. Bladder examined *per urethram*, raised ulcer felt on posterior wall. Slight irregular fever. Urine averaged 20 to 30 oz. per diem. Supra-pubic cystotomy on 48th day. Large number of miliary tubercles over surface of bladder. Pain relieved by operation; urine still contained large amount of pus, but remained acid until 109th day. Irregular fever continued, and pain in the back increased. Died suddenly on 151st day. P.M.—Bladder contracted and thickened; mucosa covered with numerous shallow ulcers the size of a pin's head. Right tuberculous pyonephrosis. Subperitoneal fibroma. Liver fatty. Tubercle at left apex. No pulmonary embolism or thrombosis.

Moveable kidney.—Females 6. C. 2, R. 4. Readmission 1; double 2. Previous nephropexy elsewhere 1; lumbar nephropexy 2.

Renal calculus.—Males 3, female 1. C. 3, D. 1. Hæmaturia 3; albuminuria 4; lumbar pain 3; colic 1; oxalate, with phosphate and carbonate of calcium 1; urate 1; phosphatic 2; stones multiple 3; pyonephrosis 2; hydronephrosis 1; stricture 1; nephrolithotomy 2 years previously 1.

Treatment.—Lumbar nephrolithotomy 2; nephrectomy (lumbar) 2.

Renal calculi; hydronephrosis, with calcification of the walls of the sac.—W. T—, male, æt. 30. Clerk. Dull aching pain in left loin for 2 years, becoming worse during the second year. Hæmaturia on one or two occasions. No attacks of renal colic. On examination, rounded tumour in left lumbar region, moving with respiration; nodular in the lower part and very hard. Colon resonance over tumour. Urine 1026; acid, albumen present. Lumbar nephrectomy on 2nd day through oblique incision, afterwards enlarged vertically. At the lower part of the kidney was a whitish-yellow flat mass, not quite as large as the palm of the hand, very hard over the greater part of its extent, but with one small fluctuating area. The kidney substance was continuous with the tumour. A calculus could be felt in the pelvis of the kidney. On section, pathologist reported "calculi of renal pelvis; occlusion of portion of pelvis, with partial hydronephrosis, followed by calcification of the walls of the sac." Progress satisfactory. Discharged cured on 42nd day.

Fatal case.—A. P—, female, æt. 41. Married. Has had 11 children and 2 miscarriages. During pregnancy has had vomiting and pain in the back, with yellow deposit in urine. Pain in the loins and round the groins for years. Five months before admission was delivered of a 6 months child; pain in back persisted, and tumour noted in right loin 1 month later, which has varied slightly in size. Amount of urine increased; pain was somewhat relieved by micturi-

tion. On examination, right kidney enlarged. Urine ammoniacal, containing a large quantity of pus. Lumbar nephrectomy on 4th day. Kidney was converted into a large pyonephrosis containing stinking pus, and many branched phosphatic calculi fitting into the calyces. Infusion of normal saline into vein 6 hours later. Death in few hours. P.M.—Left pyonephrosis, with branching phosphatic calculus.

Hydronephrosis.—Male 1. R. 1. Intermittent, ? traumatic.

Pyonephrosis.—Males 2, females 2. C. 1, R. 3. Intermittent 1; perinephritic inflammation 1; lumbar nephrotomy 2.

Tuberculous kidney.—Females 2. C. 1, D. 1. Psoas abscess 1; lumbar nephrotomy 1; lumbar nephrectomy 1.

Fatal case.—R. U—, female, æt. 40. Married. Has had a swelling in the abdomen for 6 years, which has been gradually getting larger. Four months before admission pain down the thigh and appearance of swelling below left Poupart's ligament, which has gradually increased and become painful. No urinary symptoms. On examination, large tumour in the abdomen, situated centrally; apparently fluctuates, and nodular mass projects from it to the right. Resonance all round the tumour. Swelling below left Poupart's ligament; no connection detected between the two tumours. Urine normal. Swelling in groin enlarged, and was incised on 11th day and found to be a psoas abscess; the abdominal swelling did not disappear. Sinus of thigh persisting, it was scraped on 45th day; the amount of discharge diminished. The swelling in the abdomen became more localised to the left hypochondriac region, and diminished slightly, but at times became larger; no connection could be traced between the size of the tumour and the amount of discharge. The abdominal tumour 4 months after admission began to enlarge; abdomen opened in left semilunar line on 138th day; colon was pushed forwards by enlarged kidney; incision prolonged transversely into loin, and peritoneum shut off from kidney and gauze plug passed down to kidney; 3 days later the kidney was incised, allowing the escape of pus. From this date onwards there was irregular fever, which gradually assumed a hectic character, reaching first 101° at night, and later rising to 103° ; fever persisted until death. Discharge persisted, and patient gradually emaciated. A counter-opening was made in the gluteal region to provide better drainage. Patient gradually emaciated; amount of discharge varied, and towards the end became offensive. Boracic baths were given. She developed a cough and œdema of left foot and right leg and lower abdomen. Death on 248th day. P.M.—Left kidney adherent and drawn up to the parietal wall; no trace of renal structure was found, as it consisted only of a lobulated fibrous mass, enclosing several fair-sized cavities. Sinus in groin admitted little finger, and ran across the venter of the ilium just beneath the fascia. Ureter was plugged with caseous matter. Diffuse subperitoneal abscess in right abdominal wall. Large right psoas abscess, with carious surface, on venter of ilium. Right external and common iliac veins thrombosed. Liver fatty. Right upper lobe contained numerous cavities with areas of grey hepatisation; caseous masses in lower lobe.

Vesical calculus.—Males 13. C. 11, D. 2. Recurrent, with supra-pubic lithotomy 13 months previously 1; enlarged prostate 3.

Treatment.—Supra-pubic lithotomy 7; litholapaxy 6; stones multiple 3; oxa-

late 2; urate and oxalate 2; phosphate 3; phosphate, calcium carbonate, ammonium urate, and xanthine 1; ammonium urate 1; uric acid and urate of ammonium 1; urate and phosphate 2. Weight varied between 1 grm. and 3880 grs. (two stones).

Fatal cases.

1. C. S—, male, æt. 39. Composer. History of pain, frequency, and hæmaturia for years; has passed calculi. Large stone felt. Supra-pubic lithotomy; 2 large stones and several fragments removed. Largest calculus pyramidal, circumferences being 5 inches and $4\frac{3}{4}$ inches; weight 34.522 grms.; 2nd stone cuboidal, diameters $\frac{3}{4}$ inch and 1 inch; composed of calcium carbonate and oxalate, with some urate of sodium. Small drainage-tube introduced into bladder. Extravasation, with cellulitis of abdominal wall. Severe cystitis. Irrigation of bladder, and larger tube introduced. Became weaker, with hiccough and vomiting before death on 16th day. P.M.—Supra-pubic wound sloughy. Bladder not ulcerated. Kidneys congested. Recent infarction in each lower lobe. Heart dilated and flabby.

2. A. T—, male, æt. 7. Eight weeks' history of painful micturition and pain in penis, increased by exercise. Incontinence for 3 weeks. Stone felt; no cystitis. Litholapaxy on 12th day; pain and tenderness above pubes, with blood extravasation on following day; incision and supra-pubic cystotomy; blood in bladder. Shock treated by infusion of normal saline. Fever after operation, with severe cystitis and great discharge of pus. Boracic baths. Gradual exhaustion. Death on 31st day. P.M.—Bladder suppurating and sloughing, with cellulitis of abdominal wall spreading as far as the loin; peritoneum inflamed where in contact with these parts. Right chronic interstitial nephritis. Left kidney hypertrophied.

Undescended testis.—Males 14. C. 13, R. 1. Orchidopexy 10; castration 3; radical cure of hernia 7; truss 1.

Tuberculous testis.—Males 9. C. 5, R. 4. Caries of spine 1; perineal abscess 2; readmission 1; vesiculæ seminales involved 1; scraping of tuberculous focus 1; castration 5.

Hydrocele of tunica vaginalis.—Males 11. C. 10, U. 1. "At own request" 1; tapped 1; excision 6; incision and plugging with gauze 3.

Hydrocele of cord.—Males 9. C. 8, R. 1. Excision 6; incision and plugging 2; suppurating 1.

Hydrocele of canal of Nuck.—Female 1. U. 1, "At own request."

Galactocoele.—A. W—, female, æt. 28. Married. One child 2 years ago; nursed for 13 months. Nine months before admission tumour noticed in left breast, which has gradually increased. On examination, firm elastic tumour just above nipple, size of walnut; smooth, freely moveable, not adherent to skin or pectorals. Slight water discharge from nipple; axillary glands palpable, but later diminished in size. Excision; it was a smooth-walled cyst containing material closely resembling butter. Discharged cured on 15th day.

Hypertrophy of breasts.—E. K—, female, æt. 18. Patient has had hypertrophy of breasts for $3\frac{1}{2}$ years. Enlargement began at age of 15, before the onset of menstruation. Partial excision of the breasts was performed in

October, 1895. (*Vide* Report for 1896.) Since that date no further diminution of size has occurred, and the size of the breasts giving inconvenience to the patient, she returned and asked for total removal. On examination, the breasts are much enlarged and pendulous. Measurements were: round the circumference at the base right $11\frac{1}{2}$ inches, left 18 inches; transversely, right $16\frac{1}{2}$ inches, left $15\frac{1}{2}$ inches; vertically, $13\frac{1}{2}$ inches right, $13\frac{1}{4}$ inches left. Amputation of both breasts was performed on 16th day. Tissue removed was very firm and fibrous, of a dirty white colour. The right breast weighed $3\frac{1}{4}$ pounds, and the left 2 pounds $1\frac{1}{2}$ ounces. Discharged cured on 33rd day.

Paget's eczema of nipple.—R. W—, female, æt. 36. Single. Twelve months previous to admission a small fissure appeared on the right nipple, and soon afterwards the skin around became red and inflamed. There was a quantity of yellow exudation, with much itching. Treated by ointments and lotions; some relief obtained at intervals by the treatment. On examination, a raw bright red surface about the size of a two-shilling piece implicating the right nipple and the surrounding skin; slight serous exudation. No itching present. Axillary glands slightly enlarged. Raw surface enlarged, and became extremely tender; some induration of margin developed. Amputation of breast, with removal of gland beneath margin of pectoral muscle on 21st day. On section of the raw surface no infiltration of the deeper tissues was seen, the skin being thickened. Breast firm and nodular; no tumour. Gland from axilla slightly enlarged and succulent; no naked-eye evidence of growth. Microscopically, pathologist reports "a typical Paget's eczema, with evidence of early carcinoma in the deep tissues."

Tuberculous mastitis.—L. W—, female, æt. 30. Married. No family history of tubercle. Has had 5 children and 3 miscarriages. Pain and tenderness in right breast for 4 years. Retraction of nipple, and appearance of lump in skin began 3 months ago. On examination, right breast enlarged and slightly tender. The whole organ feels irregular and knotty. Skin adherent in lower outer quadrant, and here is situated a small red nodule, raised above the level of the skin, and closely resembling a secondary carcinomatous deposit. Above this nodule is a harder, firmer mass in breast substance. Nipple retracted; no discharge. Glands in axilla enlarged. Amputation of breast and clearance of axilla on 5th day. On section the breast was firm throughout, and showed numerous orifices, from which a quantity of whitish material could be squeezed; after washing the surface closely resembled that of a plate of porridge. The firmer mass below the nipple presented a yellow appearance, and could not be certainly differentiated from the rest of the breast substance. Close to it was a small cavity containing pus. The nodule in the skin was gelatinous and of a dark red appearance. No naked-eye evidence of growth in axillary glands. Pathologist reports "tuberculous mastitis; probably a primary invasion by the ducts. The gland is also the seat of chronic inflammation of probably long duration." Discharged cured on 32nd day.

Chronic interstitial mastitis.—Females 16. C. 15, R. 1. Amputation of breast 4; excision 11; belladonna 1; cysts 7.

VASCULAR SYSTEM.

Popliteal aneurism.—J. G—, male, æt. 50. 'Bus driver. Syphilis 25 years ago. Three months previously patient noticed swelling behind left knee, with pain down the leg when walking. Swelling increased, and became more painful. On examination, well-marked popliteal aneurism, size of hen's egg. Tibial pulse much diminished. Some slight thickening of superficial arteries noted. Rest in bed. Pot. Iod. prescribed. Ligature of common femoral at apex of Scarpa's triangle on 8th day. Floss silk used as ligature. Coats divided. Pulsation in aneurism immediately ceased. 9th day, marked pulsation in aneurism; 12th day, pulsation less; 14th, pulsation markedly less. Aneurism smaller and harder. Pulsation gradually became less, and ceased on 35th day. Pot. Iod. continued after operation. Discharged cured on 39th day.

Traumatic aneurism of radial.—A. H—, male, æt. 18. Carpenter. Five weeks previously wound of thumb by chisel just above base of metacarpal. Considerable hæmorrhage. Treated at Twickenham Hospital. Wound healed by first intention. Since accident small swelling noted in left anatomical snuff-box. Considerable loss of power in hand, and wasting of thumb muscles. Occasional aching pain in wound. On examination, pulsating swelling beneath scar above first metacarpal of thumb. Bruit present. Thumb kept adducted. Muscles of first interosseous space wasted. Thumb movements impaired. No loss of sensation. Treated by pressure with pad of lint; no diminution of swelling. Excision of aneurism on 24th day. Discharged cured on 33rd day.

GANGRENE.

Senile gangrene.—I. W. S—, male, æt. 60. Printer. No history of syphilis. Attack of "gout" 18 months previously, attack beginning in left great toe, and extending to other toes later. Shortly afterwards he had the great toe-nail removed at St. George's Hospital. Inflammation of foot supervened, and recurred at intervals for 12 months; 4 months ago toes became worse, and became dead at night-time, and since then they have become dry and black. Five months previously (in August) patient suffered from thirst, and passed an increased amount of urine. This condition lasted one month, and has not recurred. On examination, dry gangrene of 2nd, 3rd, and 4th toes as far as the proximal interphalangeal joint. Line of ulceration around base of 2nd toe. Pulsation felt in dorsalis pedis and posterior tibial arteries. Remainder of foot warm. No albuminuria on admission, but present later. Pulse full and regular; no thickening of radial detected. Considerable pain, relieved by Pil. Opii $\frac{1}{2}$ gr. On 7th day no pulsation detected in foot arteries. Pulse in femorals equal. Confuses heat and cold in both feet. Feels pin-prick acutely. Tactile sense better in right than left leg. Syme's amputation on 13th day. Flaps sloughed. Some cellulitis of leg. Fifty grammes of glucose were given for 3 days preceding amputation; no glycosuria present, but appeared for 3 days after operation. Pathologist reported that both foot arteries show thickening of the intima without any peri-arteritis. Probably syphilitic. Pain absent for few days after amputation, then returned. Relieved by morphia

hypodermically. Stump left after amputation became gangrenous. Amputation of thigh in lower third on 32nd day. Sections of tibial arteries show organising thrombus with no definite changes in the arterial wall. Discharged on 65th day. Readmitted 5 weeks later. Six days before readmission the right toes began to get painful; pain prevented him from sleeping, and shot up the leg. An ulcer appeared on the heel. On examination, foot tender, toes and foot colder, dusky blue in colour. Ulcer on outer side of heel. Occasional albuminuria. Pain relieved by morphia hypodermically. Another ulcer appeared, and foot became more discoloured and colder. Pulsation in femoral artery became much more feeble. Amputation of thigh in lower third on 27th day. The popliteal artery was markedly atheromatous, but contained no clot; the anterior tibial was filled with clot. Microscopically, there were areas of calcification and atheroma. Discharged on 62nd day. Seen later; no return of gangrene in stump.

2. M. F—, female, æt. 65. Said to have had rheumatic gout in both legs 15 years ago. Small scratch over the outer ankle 25 years ago. This has never got well, but continued to heal, and then break down again. Tingling and numbness in the foot for 12 months. The toes have assumed a black colour for 6 weeks. Much pain in the foot for few days before admission. The discoloration of the foot commenced in the edge of the ulcer, and then spread to the toes. On admission, there is a large ulcer over the outer and lower third of the right leg, in which the tendon of the peroneus tertius, and the tibia and fibula are exposed. The ulcer is typically callous. Below the ulcer the whole foot is dead, and the skin is a purplish-black hue. Sensation is absent. There are blebs on the surface. Urine 1010, acid. Well-marked ring of albumen. No sugar. 4th day limb amputated in the lower third of the thigh by flaps. Wound healed with a little sloughing of the skin. During the course of healing the patient was given up to 150 grammes of glucose, the only effect of which was to send the specific gravity up temporarily to 1025. No sugar was ever found in the urine. Patient was discharged to the infirmary. The popliteal vessels appear healthy. The posterior tibial is completely filled by an organised thrombus, in which are several well-formed vessels. The nerve sections show nothing abnormal.

A. B—, female, æt. 56? Married. Amputation of the left thigh was performed in April, 1897, for senile gangrene of foot. (*Vide* Report, 1897.) The right foot became painful, and toes shrivelled and black, the gangrenous condition spreading to the foot some months before admission. On examination, all the toes are black, dry, and shrivelled, also the dorsum of the foot. Areas of gangrene are present about the ankle. No popliteal or femoral pulse felt below the apex of Scarpa's triangle. Urine acid, 1014. No sugar; albumen present. Amputation of thigh in lower third by flaps on 3rd day. Femoral vessels plugged at site of amputation. Wound suppurated; superficial sloughing of flaps at the corners. Albumen increased after operation, but rapidly diminished until only a mere trace was present. After the operation patient was given glucose up to 100 grammes daily; no glycosuria was produced. Amount of urine averaged 14 oz. in the 24 hours. Microscopically, the popliteal vein showed organised thrombus, and the artery very recent thrombus, the wall of which was apparently healthy. Discharged 46th day.

S. B—, male, æt. 53. Cooper. Five weeks before admission fractured external malleolus, treated by plaster-of-Paris splint, which was removed at the end of 4 weeks. One week later a black slough, the size of a five-shilling piece, noted on sole of foot; treated by lotions; no improvement. On admission, black slough on sole of left foot, which was removed without pain. Anæsthesia of foot not confined to special nerve areas. Knee-jerks present. Pupils equal. Urine contained a trace of albumen on several occasions. Treated by lotion and boracic bath. Refused amputation. Readmitted few days later; ulcer has become larger and deeper. Urine contained albumen. Amputation of leg at junction of lower and middle third of leg by skin flaps. Fair amount of bleeding. No note of state of arteries. Wound healed with suppuration and some slight sloughing of flaps. Discharged on 20th day. Readmitted later with cellulitis of stump.

Fatal cases.

1. S. A—, female, æt. 65. Servant. Patient admitted with cellulitis of foot of few days' duration. The skin was raised into blisters in places. Toes were not affected. Urine normal. The blistered areas rapidly became black, and the skin sloughed; on removing the sloughs the parts beneath were gangrenous. The process extended rapidly, patches of gangrene appearing 2 to 3 inches above the ankle. Temperature rose in the evening to 100°. Amputation of thigh in lower third by flaps on 5th day. Popliteal and tibial arteries showed calcification and some local thickening of the intima. Progress satisfactory. Wound healed by first intention. Sudden dyspnoea and thoracic pain on 18th day, and death in few minutes. P.M.—Left branch of pulmonary artery contained clot extending into its subdivisions. Clot mainly red, but showed linear white markings on its exterior. Clot half-inch from division of main pulmonary trunk was paler and distinctly adherent. No definite embolus found. Left lower lobe dry as compared with the rest of the organ, which was œdematous. No clot in external iliac or femoral vessels. Hypertrophy of left ventricle. Liver somewhat fatty. Kidneys granular.

2. S. B—, male, æt. 61. Dairyman. Patient admitted with moist gangrene of left great toe of few days' duration. Cough; râles and rhonchi present over the whole of both lungs. Urine normal. Gangrene spread. Cough and rate of respiration increased. Cyanosis. Pulse failed. Muttering delirium at night. Increasing feebleness. Death on 14th day. P.M.—Left leg below the knee swollen and red; 3 outer toes are gangrenous. Perforating ulcer on lower and inner aspect of big toe. Vessels of limb healthy. Both pleuræ adherent. Lungs very emphysematous and œdematous. Valves are atheromatous, but competent. Aorta very atheromatous. Liver, multilobular cirrhosis. Kidneys, passive congestion with interstitial nephritis.

Glycosuric gangrene.—J. A—, male, æt. 55. Coach-builder. Patient has lost 5 stones in 2 years. Two years ago the patient suffered from a sore on the under surface of the head of the 5th metatarsal bone, which was poulticed and became inflamed, but eventually healed. Eleven weeks before admission there appeared on the ball of the great toe a discharging spot, which was apparently a perforating ulcer. The sinus was covered with granulations, and the probe entered the great toe joint. The whole of the first metatarsal bone was necrosed. The skin around the ulcer was inflamed. The general aspect of the patient was

good, and the wasting was not very apparent. Urine 1028; no albumen, but a considerable quantity of sugar. Temperature 101° on admission, but quickly fell to normal, and never again rose above 100°. Amputation of the thigh in the lower third by antero-posterior flaps on the 3rd day. Fair amount of bleeding. The femoral artery was not distinctly decreased in lumen, but the intima showed yellow patches of atheroma in a very early stage. Wound healed well. There was never any restriction in the diet, and the man looked in much better health when he left than on admission, and appeared to have gained weight considerably.

Date.	Urine oz.	Sp. gr.	Sp. gr.	Sugar to oz.	Tl. sugar.
April 15 ...	48	1030	1004	26	1248
„ 16 ...	49	1028	1002	26	1274
Amputation April 19th.					
„ 20 ...	45	1042	1008	34	1530
„ 22 ...	26 ?	1048	1010	38 ?	988 ?
„ 26 ...	24	1042	1020	12	288
„ 30 ...	31	1044	1013	31 ?	961
May 1 ...	24	1038	1010	28	672
„ 2 ...	31	1034	1012	—	681
„ 4 ...	25	1040	1020	20	500
„ 5 ...	36	1040	1022	18	648
„ 7 ...	46½	1032	1014	18	837
„ 8 ...	45	1020	1008	12	540
„ 9 ...	38	1026	1022	4	152
„ 10 ...	52	1014	—	—	Sugar present.
„ 11 ...	45	1026	1044	12 ?	540 ?
„ 12 ...	51	1028	1018	10	510
„ 14 ...	54	1018	1016	2	108
„ 15 ...	45	1022	—	—	—
„ 23 ...	42	1026	1020	6	252
„ 24 ...	45	1020	1016	4	148
„ 27 ...	39 ?	1020	1014	6	234
„ 30 ...	1026	—	—	—	Sugar.

Readmitted 6 weeks later. Patient well in every respect, and free from all discomfort. Stump sound and healthy. Since his discharge he has lived on an ordinary diet.

Date.	Urine in oz.	Sp. gr.	Sp. gr.	Sugar to oz.	Total sugar.
July 28 ...	54	1016	—	—	No sugar.
„ 29 ...	62	1016	1015	—	Trace of sugar.
„ 30 ...	53	1016	1012	—	Trace of sugar.
„ 31 ...	46	—	—	—	—
Aug. 1 ...	55	1014	—	—	No sugar.

Readmitted October 26th. Stump well healed. Recommended for bucket-leg. Urine varied from 39 ounces to 22 ounces. Sp. gr. from 1012 to 1020. Contained about 4 grains of sugar to the ounce. Ulcers on the balls of little and great toes, covered with black scabs. Said to be getting better. Patient looked well.

Gangrenous ulcer of leg ; induced glycosuria.—G. D. T—, æt. 64. Coachman. Patient has always enjoyed good health. During the last 2 years he has passed more water than usual, but has never been addicted to drink. Present illness began with a scratch on the leg 4 weeks ago. In 3 days this became inflamed, and eventually led to a large ulcer on the front of the right leg, which extends from just above the internal malleolus for the space of 6 inches up the leg; it had a sinuous outline, and was covered with a black slough. Urine varied in amount from 16 ounces to 38 ounces, with a specific gravity of about 1014, and contained no albumen or sugar. Temperature was 101.2°. The ulcer increased in size, and the zone of infection spread so that amputation was performed in the lower third of the thigh on the 5th day by the circular method. Subsequent history good.

August 14th.—Chloral, 20 grs.

August 15th.—Glucose, 50 grms. No sugar.

August 16th.—Glucose, 100 grms. No sugar.

August 17th.—Sugar present in urine, also trace of albumen. The arteries of the leg showed some thickening of the inner coat.

Gangrene of toe ; glycosuria.—J. R—, male, æt. 62. In November, 1895, the patient had gangrene of right second toe, with glycosuria. Diabetic diet ordered. Toe amputated, and patient discharged as cured. Patient was readmitted in January, 1897, with a suppurating corn on under surface of little toe, and cellulitis of foot. Sugar was present in the urine. The quantity of urine varied from 39 ounces to 75 ounces in the 24 hours, and the sugar from 108 grs. to 624 grs. Albumen also present. Incisions were made into the foot, a slough the size of half a crown separated, and patient discharged on 45th day. (*Vide* Report for 1897.) Readmitted August 30th, 1898. Three weeks ago a corn on under surface of left middle toe suppurated, and the toe became gangrenous. On admission, the middle toe of left foot in a condition of moist gangrene; line of demarcation at proximal interphalangeal joint. Gangrenous portion removed at line of separation. Glycosuria always present, varying in amount from 10 grs. to 12 grs. per ounce. Amount of urine varied from 32 ounces to 50 ounces in the 24 hours. Patient since his first admission has always, as far as possible, confined himself to a diabetic diet. Discharged on 7th day.

Gangrene of leg, ? embolic.—A. T—, male, æt. 30. Barman. No history of syphilis or alcohol. Patient had influenza a fortnight before admission, from which he recovered sufficiently to get up. Four days previous to admission, on getting out of bed, he noticed that his leg was numb and tingling, and he could not move the limb. On the following day a bluish patch was noticed on the left ankle, which has spread to the foot and the ankle. He had much pain and tenderness in the leg. On examination, patient anæmic; the right leg from the knee downwards is cold and slightly swollen. The foot is dusky red as far as the ankle, and beyond this a bluish discoloration extending over the lower third on the inner aspect, and the lower two thirds of the leg on the outer aspect. No line of demarcation. Leg and foot generally tender, but patient complains particularly of pain at the site of bifurcation of the popliteal artery. Pulsation in the femoral artery and that of the tibial arteries is only just perceptible. General circulation feeble. The

heart dulness is encroached upon by the lung. Sounds very feeble, but no murmur heard. Heart probably not much enlarged. No evidence of aneurism. The temperature showed an evening rise to 101° — 102° . Urine, no albumen or sugar. Pain was relieved by morphia hypodermically, and later by Pil. Opii gr. $\frac{1}{2}$, t. d. s. A line of demarcation began to appear on the 14th day at the upper third of the leg. Various small bullæ appeared on the leg. General condition improved. On the 20th day a small area of gangrene appeared on the left heel. The evening rise of temperature now averaged 99° — 100° . Line of demarcation became more defined. Amputation of thigh by flaps in the lower third on the 22nd day. The femoral artery was blocked by firm adherent clot at the site of amputation. There was very little hæmorrhage. No disease was detected microscopically in the arteries or the sciatic nerve. Stump healed well, but with some suppuration. The temperature gradually declined to normal after the operation. The slough on the left heel slowly separated, and left a callous ulcer, which gradually healed. Discharged cured on 75th day.

Raynaud's disease of amputation stump.—H. W.—, female, æt. 21. Patient has suffered from chilblains, and always from cold hands and feet in the winter. She has had caries of tarsus and tuberculous disease of ankle, for which, after various minor operations, amputation was performed 3 inches above the ankle by means of skin flaps, 3 months previous to present admission. Amputation wound healed well, but broke down 14 days later while at a convalescent home. The ulcer was treated, and began to heal. She had complained of a sensation of heat in the stump. On examination, there is a separation of $\frac{1}{2}$ an inch between the flaps, the edges of which are deeply pigmented. Limb is colder than the other, and bluish in colour. Treated by subcutaneous injections of nitro-glycerine, $\frac{1}{80}$ gr. b. d. Twelfth day, blueness has disappeared, and stump in better condition. Limb feels fairly warm, but varies with regard to the temperature of the other leg. No sign of healing of ulcer. Ulcer healed gradually; a blue line occasionally appeared round its margins. The temperature of the stump, as compared with that of the sound leg, taken by a surface thermometer, showed variations up to 10° . Occasionally the sound leg was colder than the stump. Marked difference was noted when the nitro-glycerine was discontinued for a day. The stump was also massaged. Discharged much improved on 57th day.

THYROID.

Parenchymatous goitre.—Females 8. C. 3, R. 5. Stridor 1; dyspnœa 1; increase of fibrous tissue with calcified areas 1; morbus cordis 1.

Treatment.—Thyroid extract 3; leeches and Leiter's coils 1. Excision of isthmus 1, of lobe 2, of isthmus and portion of lobe 1.

Adenoma.—Male 1, females 3. C. 4. Cystic 3. Excision in all.

Cysts.—Females 4. C. 2, R. 1, U. 1. Readmission 1; dyspnœa 2; blood-stained fluid 3. Shelled out 2; excision of lobe 1.

ARTICULAR SYSTEM.

Shoulder.—Tuberculous arthritis. Males 2, females 2. C. 1, R. 3. Abscess 2; sinus 2; phthisis 1; epiphysitis 1.

Treatment.—Excision 1 by anterior incision; incision and scraping of abscess 1; rest and antiseptics 2.

Ankylosis.—Male 1. U. 1. Fibrous, with enlargement of biceps bursa. "At own request."

Elbow.—Tuberculous arthritis. Males 8, females 7. C. 2, R. 12, D. 1. Family history of tubercle 5. Sinus 8; of shoulder 3. Readmissions 6.

Treatment.—Amputation of arm 1; excision 1; arthrectomy 3; arthrotomy 5; plaster-of-Paris splints 3.

Fatal case.—M. B—, female, æt. 4. Eight weeks' history of pain in elbow. On examination, swelling on outer side of elbow-joint. Fluctuation. Limitation of movement. Arthrectomy of radio-humeral joint on 4th day. Irregular fever starting on the 11th day. Vomiting, constipation, and drowsiness gradually increasing to coma. Pulse slow. No squint or retraction of head. Temperature rose to 107.6° before death on 35th day. P.M.—Scattered miliary tubercles throughout all the organs, the oldest tubercle being found in the bronchial and mediastinal glands. Right pleural adhesions, with miliary and caseous tubercles. Tuberculous meningitis, with excess of ventricular fluid.

Gonorrhæal arthritis.—Male 1. C. 1. Plaster-of-Paris splint; massage and exercises.

Rheumatoid arthritis.—Male 1. R. 1. Massage.

Septic arthritis.—Male 1. C. 1. Acute infective periostitis of humerus. Arthrotomy.

Traumatic arthritis.—Male 1. R. 1. Old separation of internal condyle. Plaster-of-Paris splint.

Ankylosis.—Male 1. R. 1. Fibrous. Old tubercle. Massage.

Synovitis.—Female 1. C. 1. Internal angular. Massage.

Wrist.—Tuberculous arthritis. Male 1. C. 1. Abscess. Incision of abscess, followed later by amputation of forearm in middle third.

Gonorrhæal arthritis.—Females 2. C. 1, R. 1. Splint. Pot. Iod. and Lotion Plumbi. Fingers affected 1.

Septic arthritis.—Male 1. C. 1. Previous cellulitis; fingers affected. Amputation at wrist.

Arthritis?—Female 1. R. 1. ? Tubercle. Splint.

Neurotic wrist.—Male 1, female 1. C. 2. Massage.

Hip.—Tuberculous arthritis.—Males 31, females 20. C. 12, R. 36, U. 2, D. 1. Family history of tubercle 13; of trauma 6; caries of pelvis 5; of femur 3; of spine 1; necrosis of pelvis 1; tuberculous knee 1; erysipelas 1.

Treatment.—Anterior arthrectomy 4; anterior excision 10; external excision 1; posterior excision 1; arthrotomy 5; incision and suture of abscess 3; incision and drainage of abscess 4; scraping of sinus 6; amputation of thigh followed Furneaux Jordan's amputation 1. Remainder by rest, extension, and Thomas's splint or plaster of Paris.

Fatal case.—G. F. S—, male, æt. 30. No history of tubercle. Hip trouble since age of 18 months, following an accident. Abscess developed in gluteal region 12 years ago, and was opened; since that date several abscesses have formed and broken. On examination, leg flexed and adducted, shortened; multiple sinuses. Albuminuria. Sinuses explored on 12th day; extensive disease of femur and pelvis; carious surfaces scraped. Relief after operation, discharge becoming less. Amputation of thigh in middle third on 36th day. Furneaux Jordan's amputation on 61st day, with removal of carious bone. Death from shock in few hours. P.M.—Much caries of acetabulum, ilium, and ischium. Lardaceous disease of liver, spleen, and kidneys. No other tuberculous lesion.

Ankylosis.—Male 1, females 3. C. 1, R. 2, U. 1. Fibrous 3; osseous 1; tuberculous 3; cause? 1. Subtrochanteric osteotomy 1; massage 3.

Pathological dislocation.—Female 1. U. 1. Double old tuberculous disease; previous osteotomy.

Knee.—*Tuberculous arthritis*.—Males 16, females 22. C. 12, R. 25, D. 1. Family history of tubercle 14. Trauma 5; tuberculous shoulder 1; caries sicca of humerus 1; tuberculous elbow and ankle 1.

Treatment.—Excision 8; arthrotomy 2; amputation of thigh 5. Remainder by plaster of Paris, leather, or Thomas's splint.

Fatal case.—S. H—, female, æt. 53. Pyæmia. (*Vide* Special Table III.)

Ankylosis.—Males 2, females 5. C. 3, R. 3, U. 1. Fibrous 1; osseous 6; gonorrhœal 3; puerperal 1; septic arthritis 1; previous excision for tubercle 1; of wrist 1; passive movement 4; osteotomy of femur 1.

Loose bodies.—Female 1. C. 1. Arthrotomy and extraction 1.

Dislocated semilunar cartilage.—Males 8. C. 8. Internal in all; anterior portion torn up 3; in intercondyloid notch 2; quiet necrosis of cartilage 1; excision of portion 5; suture to tibia 2; anæsthetic and reduction 1.

Ankle.—*Tuberculous arthritis*.—Males 9, females 4. C. 4, R. 9. Family history of tubercle 4; readmissions 5; caries of tibia 1; of fibula 1; tuberculous testis 1; phthisis 1.

Treatment.—Excision 3; anterior incision 2; multiple incisions 1; arthrectomy 3; anterior incision 1; arthrotomy 3; amputation of leg 1; of ankle 1; Syme 1; remainder with plaster-of-Paris splints and peg-leg.

Sacro-iliac disease.—Male 1. R. 1. Arthrotomy of joint through ilium, with scraping of ilium.

Spondylitis deformans.—Males 4. R. 4. Ankylosis of knees 1; wrenching of knees 1; massage and hot air baths 2.

AUDITORY SYSTEM.

Mastoid abscess.

Fatal cases.

Otitis media suppurativa; mastoid abscess; meningitis.—C. W—, female, æt. 63. Married. Discharge from the left ear for many years. Pain during last 2 months. Swelling behind ear, with increase of pain for 1 week. On examination, mastoid tenderness and œdema. Pre-auricular and submaxillary glands

enlarged. Temperature 100.2° . Stacke's operation. Sinus leading into antrum found. Pain not relieved by operation. Temperature fell to normal on 3rd and 4th days, and rose to 100.2° on 5th day. Wound quite healthy. On the evenings of the 5th and 6th days patient complained of headache; not localised, and mental condition was slightly impaired; she got out of bed several times. She was also slightly drowsy during these days. Temperature rose to 101.8° on 7th day, and to 103.8° on 8th day; not much alteration in general condition. 9th day, temperature still raised 102° to 103° . Pulse 80. She is drowsy, and does not complain of headache. Pupils equal, and react. No nystagmus or optic neuritis. Knee-jerks equal. No paralysis. 10th day, temperature 100.6° . Slept well; did not want to get out of bed. Complained of headache, not localised to any particular spot. Pulse 84. 11th day, distinctly more drowsy. Answers questions after a distinct pause. Says she feels ill, but does not complain of headache. Lies with head somewhat extended and eyes partially closed. Moves restlessly at intervals. Slept badly, and tried to get out of bed. Temperature 102.6° . Pulse 88. Pupils small and equal. React. Slight horizontal nystagmus. No paralysis detected. Knee-jerks and plantar reflexes equal and brisk. 12th day, no alteration in condition beyond irregularity of pupils, the left being the larger. Temperature fallen to 101° . 13th day, temperature risen to 103.6° . Drowsy. Answers questions badly. Will put out tongue, which is dry, red, and cracked. Definite lateral nystagmus. Left pupil larger than right, and fixed. No paresis detected beyond a doubtful left facial. Knee-jerks increased. Operation. Incision upwards and forwards, and flap turned down. One-inch trephine applied short 1 inch above centre of external auditory meatus. Dura mater torn; hæmorrhage from pial vein only arrested by gauze plug. Brain pulsated; bulged slightly. Trocar and cannula introduced downwards, inwards, and also forwards. Negative result. Opening in skull enlarged downwards, and roof of tympanum explored with negative result. Sinus exposed, not thrombosed. Hæmorrhage had ceased at end of operation; small gauze drain introduced between dura and brain. Very restless after operation. Could not answer questions or recognise friends. Pupils became equal at the end of operation, but soon became unequal. For few days preceding operation patient had cough and signs of hypostatic pneumonia. 14th day, partially comatose, with intervals of delirium and restlessness. Pupils, left larger. Respirations became rapid. 15th day, lies practically comatose. Rapid respirations. Occasional twitching of right face. Eyes closed; resents eyelids being lifted. Left pupil remains large; both react. Tremulous movements of hands, "plucking at bedclothes;" do not resemble twitchings the result of meningitic irritation. Wound dressed and plug removed. Offensive pus; plug sweet at extremity. No change in evening, with exception of paralysis of buccinators and increased rate of respiration. Ophthalmological examination under atropine; blurring of nasal margin of right disc; no swelling. Left not seen. 16th day, distinctly more conscious. Respirations less rapid, 60 per minute. Temperature fell from 104° to normal. Pulse 113. Paralysis of buccinator less marked on right side. Moves arms better; legs lie flaccid, but move on stimulation. Knee-jerks obtained; not exaggerated. Pupils equal and active. No crepitations or rhonchi heard in lung; air entering left lung better than right. Temperature rapidly rose to 103.8° . Patient became more feeble, but remained more or less conscious, and died on 17th day. P.M.—

Cerebral hernia the size of a walnut through trephine hole. A considerable patch of lymph on both the upper and lower surfaces of the central lobe of the cerebellum; another small patch at the apex of the left frontal lobe. Left temporo-sphenoidal lobe was in part broken down; no abscess here or elsewhere. Dura over left petrous discoloured; some carious bone still present in middle ear. Lateral sinus healthy. Edema and congestion of lungs. Hypertrophy of left ventricle. Chronic interstitial nephritis. Cavernous angioma in right lobe of liver.

Otitis media suppurativa; mastoid abscess; meningitis.—S. W—, male, æt. 7. Discharge from both ears for 4 years, following measles; discharge intermittent. Three weeks before admission discharge became greater, with frontal headache and fever. No history of vomiting or giddiness. Admitted with temperature of 100°. Tenderness over both mastoid regions and down right side of neck; no cord felt. Restlessness, with constant crying out and putting hands to head. No retraction. Temperature rose to 104°. Antrum opened on both sides; the right contained very offensive pus, with some carious bone; the left offensive pus. Temperature fell to 99·8°. Pain was not relieved. Death on 2nd day. P.M.—Antra opened. Groove for lateral sinus healthy, and no evidence of bone disease from within the skull. Sinuses and dura healthy. Surface of brain hyperæmic, dry, and sticky, with some yellow streaks along the sulci. Base of brain infiltrated with infected lymph extending into the Sylvian fissures. Infection of pia-arachnoid took place directly through bone.

Otitis media suppurativa; mastoiditis; temporo-sphenoidal abscess.—H. W—, male, æt. 15. Discharge from ear for 5 years. Two and a half years ago patient states that the discharge ceased, and he became very ill, with fits. An operation was performed, and he was able to resume work in a month. Discharge continued until 4 days previous to admission, when he woke up "feeling silly and funny in his head," and then became unconscious until after admission. On examination, patient partially comatose, with occasional attacks of noisy delirium. Pupils equal; slight early optic neuritis on left side. Edema and slight tenderness over left mastoid. Temperature 98°. Pulse 68. No note as to paresis or knee-jerks. Operation same day. Mastoid antrum opened; pus found in small quantity; a probe passed into the tympanum passed through a perforation in the roof of that cavity. Incision enlarged and bone removed upwards over the temporo-sphenoidal lobe. Brain punctured by trocar and cannula, also with fine scalpel. No pus detected. Incision sutured. 2nd day, mental condition somewhat improved. Temperature rose to 99°. Pulse 68. 3rd day, talks quite rationally this morning. Retention. Temperature fallen to 97·4°. Pulse 60. Patient became very noisy and violent in the evening, shouting and wanting to get out of bed. Temperature rose to 102°. Left optic neuritis still present. 4th day, temperature fallen to 97·6°. Pulse 58. Operation. Wound opened up; fungus cerebri with pus escaped; offensive. Fungus removed. Wound left open. Temperature rose to 98·4°. 5th day, quite sensible. Complains of headache. Pulse 60. 6th day, condition about the same. Temperature subnormal. Edges of both optic discs blurred. Veins enlarged. Copper streak on arteries. No hæmorrhages. Further progress satisfactory, with the exception of an attack of follicular tonsillitis. Mental condition gradually became normal; when patient read he could not understand everything printed. Discharged cured on 48th day.

Otitis media suppurativa; temporo-sphenoidal abscess.—C. H. D—, male, æt. 33. Clerk. (*Vide Reports for 1897.*)

Otitis media suppurativa; temporo-sphenoidal abscess; meningitis.—H. S—, male, æt. 37. Compositor. Fourteen days before admission sore throat and pain on swallowing. Discharge from left ear 1 week later, followed by pain in the right ear. Never had discharge from the ear before. Has been unconscious at times during the last 6 days, with deafness. Complained at times of frontal, and then occipital headache. On examination, lies on back, very drowsy, but answers questions if spoken to. Can read and understand what is said. Recognised the Lord's Prayer. No paralysis. Knee-jerks obtainable with difficulty. No optic neuritis. Temperature 102°. No signs over mastoid. Temperature became lower, with evening rise to 100°. No other change. Mastoid antrum opened on both sides on 8th day. Left mastoid riddled with pus throughout, but not much in antrum; right mastoid not nearly so much affected. Both lateral sinuses exposed; the left bled freely; right appeared normal. Tympanum curetted on both sides, and nothing but bare bone found. 9th day, temperature fell below normal. Pulse 68. 10th day, much discharge from left ear. Weakness of left arm. More drowsy. Pulse 68. Temperature normal. 11th day, can still read. Understands what is said. Does not use left hand. Slight right optic neuritis. 12th day, three trephine holes 1 inch in diameter made over right temporo-sphenoidal lobe, and bone removed between them, making a triangular opening measuring $1\frac{1}{2}$ inches along the sides, the inferior level being $\frac{1}{2}$ inch above the base of the skull. Dura bulged, flap turned down. Trocar and cannula inserted forwards and inwards; pus found. Brain matter freely divided, and finger introduced. Gauze plug placed in cavity. Skin left turned back. 13th day, temperature rose to 103° in evening. Not much discharge. Large hernia cerebri. Abscess cavity quite close to surface; finger introduced, and gauze plug replaced. Pulse 116. Fairly intelligent. Headache better. 14th day, rigor, with temperature 103·4°. Right jugular vein tied, small but patent. 15th day, hernia cerebri about the size of a Tangerine orange. Cavity of abscess almost outside skull; very little discharge. General condition as before. Uses left hand more than before operation. 16th day, left arm rigid. Knee-jerks present and equal. Pupils equal (as they always have been throughout); react to light and accommodation. Tremors of right hand. Temperature 105°. Pulse 108. 18th day, has become quite comatose. Temperature 103°, fluctuating to normal. Pulse 120. Hernia cerebri increased, with large quantity of discharge. Lateral nystagmus. Difficulty of swallowing. Temperature rose to 106·2° before death. Pus from abscess measured $1\frac{1}{2}$ oz., and gave a pure culture of streptococcus in short chains. P.M.—Hernia cerebri as large as golf ball. Both middle ears and mastoid had been cleared of pus. Lungs slightly œdematous. Liver fatty. Cloudy swelling of kidneys. Left lateral sinus plugged with firm, healthy clot; all other sinuses contained fluid blood. Right lateral sinus engorged. Extensive plastic basal meningitis extending backwards from optic chiasma to posterior end of cerebellum. Abscess cavity in right temporo-sphenoidal lobe, excavating upper two convolutions in outer two thirds. Greater part of outer wall formed the hernia cerebri.

Otitis media suppurativa; temporo-sphenoidal abscess; meningitis.—

B. H—, male, æt. 23. Labourer. Discharge from the right ear for 8 or 9 years, ceasing a fortnight before admission. Pain in the ear for the week preceding admission, involving the whole of the right side of the head, particularly the frontal and occipital regions. On examination, no alteration in mental condition. Complains of pain over the right side of the head. Temperature 101.2° . No œdema or tenderness over mastoid. Eyes normal; react; no optic neuritis. Trace of albumen in the urine. The pain increased in severity, being relieved, however, by phenacetin. Temperature ranged between 101° and 104° . On the 4th day right ptosis was present, and the mouth was drawn slightly over to the right. 5th day, fit, which began with twitchings of the muscles of the face and arms, and later with more vigorous contractions of the arm muscles. Rigor later, in which the temperature rose to 107° , followed by a fit of the same character as before. Patient rapidly became comatose, and died in the evening. P.M.—General meningitis, more marked at the base. Nearly the whole of the temporo-sphenoidal lobe was converted into an abscess containing greenish pus. The wall of the abscess was formed by the grey matter, and was not more than $\frac{1}{2}$ an inch in thickness. Abscess communicated with the descending cornu of the lateral ventricle, but no evidence of pus in the general cavity of the ventricle. Sinuses healthy. Upper surface of right petrous bone was greenish, and the bone surrounding the tympanum was permeated by greenish pus, and much softened.

Otitis media suppurativa; extra-dural abscess; meningitis. C. S—, male, æt. 35. Labourer. Discharge from both ears for years. Patient whilst at his occupation received many blows from machinery. One year ago severe injury to left side of head. Since then there has been occasional pain in the head, chiefly on the left side; frequency of attacks of pain gradually increased. Eight days before admission pain became severe, and gradually ceased. Was treated for "rheumatism" by doctor. Patient was restless, and disinclined to stay in bed, getting up and walking about the room. Six days later attacks of shivering, with increase of restlessness with slight delirium, followed on the next day by stupor and drowsiness, which were replaced by restlessness on the day of admission. No vomiting or muscular twitchings. On examination, patient looks ill, and complains of pain over left side of head. Is very deaf; will answer questions rationally. Offensive discharge from both ears. Tenderness in front of the left ear and down the neck; no thickening of jugular vein detected. No tenderness or œdema over mastoid. Eyes react; no optic neuritis. Knee-jerks equal. No paresis. Rigor, with temperature rising to 105.4° two hours after admission. Antrum opened; the roof of the antrum and tympanum had been destroyed. A small quantity of pus escaped from an extra-dural abscess. Pain relieved. Temperature fell to 100° . 2nd day, patient comfortable and quiet throughout the day. Restlessness at night controlled by morphia hypodermically. 3rd day, rigor at 2 a.m., with temperature rising to 105.4° . Some nystagmus noted later. Doubtful twitching of right side of face. Nystagmus more marked in afternoon; deviation of eyes to the right. Twitching of left side of face. Patient lies on right side. Pulse 92. Operation, trephine hole made over cerebellum, and opening enlarged forwards; lateral sinus partially thrombosed. Cerebellum explored with trocar and cannula; no pus found. Patient very restless after operation, and pulse became

rapid and feeble, 132. Became comatose. Twitching of the left side of the face became marked. Rigidity with retraction of the head supervened shortly before death. Temperature rose after death to 106°. P.M.—Above and slightly posterior to the outer aspect of the petrous bone, dura mater stripped up by small abscess, and at the posterior aspect of the cavity a probe could be passed into the interior of the cranium. Lymph on upper aspect of cerebellum, and also between temporo-sphenoidal lobe and the rest of the cerebrum. Injection of ventral aspect of pons, medulla, and cerebellum. Some excess of fluid in the lateral ventricles.

Otitis media suppurativa; cerebellar abscess.—W. H—, male, æt. 26. Carpenter. Ten weeks ago, possibly after influenza, patient felt pain in the right ear, followed by discharge, which continued. Pain later became more severe. On examination, patient somewhat drowsy, complaining of pain in the right temple and ear. Thin blood-stained discharge from ears; polypus in right ear. Tenderness over right mastoid; no œdema. Pre-auricular gland enlarged. Lateral nystagmus present. Right facial paresis. Vertigo present, with staggering gait and hesitating speech. Temperature 101°. Mastoid cells opened on 2nd day. Pus found in antrum. Bone very hard. Lateral sinus exposed and injured; profuse hæmorrhage arrested by plugging. 3rd day, temperature fell to 98.4°. Headache more intense. Facial paralysis more marked. Eyes, both optic discs pale, margins indistinct, arteries diminished in size, and veins swollen and tortuous. Flushed face, and mental condition somewhat impaired; patient complaining loudly of pain. Temperature rose to 102.8° in the evening. 4th day, operation, more bone removed. On removal of gauze plug from sinus profuse hæmorrhage, which recurred during the operation as the gauze was shifted; sinus also wounded again. Since sinus widely open, it was decided to tie jugular in neck to avoid systemic infection. Vein patent. During application of bandage respirations became feeble, and at long intervals. Pulse continued strong. Artificial respiration produced no permanent effect, and death occurred, the respiration ceasing before the pulse. P.M.—Right lobe of cerebellum adherent to hinder surface of petrous bone at internal auditory meatus. On removal, a drachm of pus escaped from small orifice in the anterior border of cerebellum, which was the anterior extremity of an abscess measuring about $\frac{3}{4}$ by $\frac{1}{2}$ inch. Pus green and thick. No meningitis. Tympanum and antrum well cleared out. No thrombosis of sinuses.

Otitis media suppurativa; cerebellar abscess.—B. R—, female, æt. 24. Discharge from the left ear for many years. Christmas, 1897, a polyp was removed from the right ear at the Royal Ear Hospital, and 4 days after the operation she began to vomit and suffer from severe headache, which continued up to the time she was admitted to the hospital (on Medical side) on March 12th, when the temperature was 102°. The vomiting then ceased, but the headache continued. The pulse was about 80. No mastoid tenderness. Pupils normal; no optic neuritis. Tuning-fork heard on the left mastoid. Occipital tenderness. Both knee-jerks brisk; no patella or ankle-clonus. March 21st.—As the temperature became again raised, and the headache continued, the mastoid was opened and said to be normal, except for a little carious bone. The operation relieved the symptoms for a time, but the headache returned, and was mostly confined to the left side of the head. There was also some complaint of giddi-

ness, but this was not prominent. April 18th.—Severe pain in the left ear and eye, and some facial weakness noticed on the same side. The tongue was slightly protruded to the right. Discharged on April 23rd. Readmitted on July 29th on Medical side. For a month after leaving the hospital patient continued fairly well, but then began to feel ill, complained of headache, and commenced to vomit, so that in course of time she became very thin. On admission, she complained of severe occipital pain, but there was no local tenderness. The discharge from the ear still continued, and the gait was reeling, but it was impossible to say that this was more than could be accounted for by her weak condition. Eyes normal. Slight weakness of left upper extremity. Knee-jerks brisk. Patient was at this time so affected by the pain in the head that accurate examination was impossible, and sensation could not be satisfactorily tested. Temperature normal. Pulse 54. July 30th.—An abscess that occupied the whole of the left cerebellar hemisphere was evacuated. Mastoid antrum opened for the first time. Cavity of abscess plugged with gauze. Drainage was ensured by frequent passage of the finger into the cavity, which was surrounded by definite walls. The operation relieved the pain, and the patient seemed better, but she never really improved, remaining in a very apathetic condition. Vomiting, occasionally with some headache. Condition of left arm did not alter. Constipation was troublesome. Temperature began to rise on September 11th, reaching 105° on the 13th. Exploration of sinus and cerebellum; nothing detected beyond large sequestrum of outer surface of occipital bone. Death on September 14th. Intellect was always clear up to the last. P.M.—Brain normal, except that the left cerebellar hemisphere was represented by a shell.

See Special Table III for two cases of lateral sinus pyæmia, one with temporo-sphenoidal abscess.

SKIN AND SUBCUTANEOUS TISSUES.

Calcified guinea-worm in leg.—E. E. J—, female, æt. 27. Lived in India for first 9 years of life. At age of 5 several guinea-worms removed from left leg. Five months before admission noticed a swelling in the calf of her left leg, accompanied by a dull aching pain. On examination, very hard lump about $2\frac{3}{4}$ inches long and 1 inch wide, situated in the lower part of the left calf, freely moveable under the skin; not attached to the muscles. Excision. Worm coiled up in oval shape, about 2 to 3 inches in length, and $\frac{3}{4}$ inch broad; extensively calcified. (*Vide* Museum for specimen.)

SUMMARY OF INJURIES.

GENERAL INJURIES.

Burns.—Males 22, females 26. C. 27, D. 21. Epilepsy 1.

Causation.—Clothes ignited 28; lamp upset 3; fall into fire 9; rocket 1; house on fire 1; swallowed hot potato 1.

Treatment.—Boracic baths 12; Ung. Boracis 5; Thiersch's grafts 11; remainder by hot lotions, generally boracic or picric, strychnine and morphia.

Fatal cases.

Under 24 hours.—Males: 3 years 1, 4 years 1. Females: 2 years 2, 2½ years 1, 4 years 1, 5 years 1, 72 years 1.

Over 24 hours.—Males: 1¼ years 1, 1½ years 1, 1¾ years 1, 2¾ years 1, 3 years 1, 3¾ years 1, 4 years 1, 5 years 2. Females: 1 year 1, 2 years 1, 3 years 1, 11 years 1, 35 years 1.

W. T—, male, æt. 4. Clothes caught fire. Burn of lower abdomen, genitals, and thigh (deep). Treated with boracic ointment and picric acid. Sloughs separated. Fever. Gradual exhaustion. Death on 11th day. P.M.—Ulcer on left tonsil. Lungs congested and œdematous. Ulcer of duodenum ¾ inch long, situated just beyond the pylorus, and extending to peritoneal coat.

W. R—, male, æt. 5. Burnt through upsetting paraffin stove. Burn of left arm, leg, and side of chest. Left arm became cold, white, and tense on 2nd day, when death occurred. P.M.—No thrombosis of arm vessels.

Scalds.—Males 27, females 18. C. 37, D. 8.

Causation.—Hot watery fluids 37; hot soup 2; poultice 1.

Treatment.—Boracic bath 17. Ung. boracic. 2. Thiersch grafts 5. Remainder hot lotions.

Fatal cases.

Over 24 hours.—Males: 3 months 1, 1½ years 1, 2 years 2, 3 years 1, 4 years 1. Females: 3 years 1, 4 years 1.

Concussion.—Males 40, females 10. C. 48, U. 1, D. 1.

Complications.—Scalp wounds 8; of face 2; fractured rib 1; spine of scapula 1. Transferred to Medical side 1.

Fatal cases.

Laceration of brain.—T. P—, male, æt. 39. Railway guard. Fell on back of his head while getting into guard's van. Admitted in a dazed condition, and

could not answer questions. Scalp wound. Left pupil larger than right. No paresis. Fits 3 in number on 2nd day. General muscular twitchings, followed by unconsciousness in fits. No passage of urine or fæces. Twitchings first started in right hand on one occasion. Became delirious and violent. Porter required to keep him in bed. Gradually became comatose. Temperature rose to 104°. Death on 4th day. P.M.—Lungs congested and emphysematous; right œdematous. Heart dilated. Chronic venous congestion of kidneys. Considerable quantity of deeply blood-stained fluid beneath dura mater, with clotted blood in sulci between convolutions. Laceration of brain at apex of right temporo-sphenoidal lobe and under surfaces of frontal lobes in the region of the olfactory bulb. Blood-stained fluid in ventricles. Puncta cruenta well marked.

Fractures of vault of skull.—Simple, males 2, female 1. C. 1, D. 2.

Fatal cases.

1. *Fractured parietal bone; ruptured middle meningeal artery.*—G. B—, æt. 29. Labourer. Knocked down and stunned by another man 1 week before admission. Went home, and came to hospital a week later. On admission, dull and drowsy; answered questions slowly and incoherently. Right side of face sweating more profusely, and the left side of body was moister. No loss of power. Knee-jerks diminished. Pupils equal. Pulse 52. Became noisy and restless shortly after admission. Temperature rose to 104.6°, but reduced by tepid sponging. Increasing coma. Death on 2nd day. P.M.—Clot size of a florin over right middle meningeal artery. Fissured fracture crossed the groove for the artery. Whole of convexity of right hemisphere covered by thin layer of blood-clot. No damage to brain. Base of left lung firmly adherent, and one calcareous nodule in pleura. Liver fatty.

2. *Fractured parietal bone; ruptured middle meningeal artery.*—H. H—, male. æt. 22. Warehouseman. Fell 14 feet on to head. Concussed for a short time; given brandy; vomited, and gradually recovered consciousness, after which was able to walk. Period of consciousness lasted about 2 hours, after which he rapidly became comatose. Pupils became unequal, the right being the larger; neither reacted. Muscular twitchings in right leg, followed by left hemiplegia, more marked in lower than in upper extremity. Stertorous breathing and slow pulse. Death shortly after onset of coma. P.M.—Extra-dural clot, the size of a fist, compressing the right frontal lobe; the blood had come from a rent in the anterior branch of the middle meningeal. Transverse fracture of skull starting from the coronal suture, and running through the anterior inferior part of the parietal to the squamous portion of the temporal and the great wing of the sphenoid. Organs healthy.

Fractures of vault of skull; compound.—Males 2, female 1. C. 3. Treated by antiseptics and suture of wound.

Simple depressed fracture of vault.—Male 1. C. 1.

Compound depressed fracture of vault.—Males 6, female 1. C. 1, D. 6. Bullet wound 2. Trephining 1; elevation and removal of fragments 1.

Bullet wound of head.—L. W—, female, æt. 24. Music-hall actress. Was shot at with a revolver 1 hour previous to admission. The first shot was fired from in front, and rendered her unconscious; and after that another was fired

from behind. Soon regained consciousness. Profuse hæmorrhage. On examination, collapsed and pallid; quite conscious. Pulse 89 and of moderate strength. Respirations quick and shallow. Temperature 96.4° . Wound on a level with and slightly anterior to the upper extremity of the left ear cartilage, and a second one just below the left mastoid process. Wounds circular; no charring of edges; little hæmorrhage.

Operation.—Anterior wound passed upwards and backwards for 2 inches, and bullet easily felt beneath scalp and extracted. The track ran beneath epicranial aponeurosis. Vertical incision made from posterior extremity of track, and flaps turned back. Just posterior to mastoid process was a depression 1 inch long by $\frac{3}{4}$ inch perpendicularly, with a small puncture at anterior part leading into cranial cavity. Small broken fragments of bone removed. Bone damaged was the outer wall of the lateral sinus and portion of mastoid process; $\frac{3}{8}$ inch thick. Inner table damaged over wider area. Sinus uninjured. Bullet track led into posterior fossa. Probe passed for 3 inches; bullet not found. Small amount of blood and brain matter escaped. Gauze drain inserted. Temperature rose to 99.6° after operation, and then fell to 98° . Pulse 105 to 120 per minute. 2nd day, patient lies on her right side, and keeps her eyes closed. Limbs all flexed. Nothing abnormal noticed in general appearance. Eyes normal. No paralysis or loss of sensation. Respirations 26. Pulse 104. Temperature rose to 100.5° in evening. 3rd day, temperature fallen to 99° . Respirations 24, and pulse 114. Complains of pain over forehead and left side of head. Well-marked horizontal nystagmus when looking to the left. Right knee-jerk absent, with diminution of left. ? Deafness of left ear. 4th day, temperature varying between 98.8° and 99.2° . Pulse regular; varied between 80 and 93. Faint general jaundice; conjunctivæ tinged. 5th day, urine 1032; acid; distinct trace of albumen and bile. Temperature rose to 100.6° in the evening. Respirations 22. Pulse 96 to 100. No other alteration in condition. 6th day, not so well. Almost continuously sleeping; when awake is quite rational. Complains of frontal headache and, for first time, of stiffness of neck. Lies with flexed joints. Wound healthy; slight serous discharge. Gauze drain removed. Deafness ?; hears watch at 6 inches. Jaundice less marked. Thirst. No sickness. Bowels open well; no loss of control. Passed urine into bed during night, but this was the first time. Temperature 101° ; skin moist. Pulse 116, full, rising in frequency. Respirations 24 to 26. Pupils equal, moderate in size, active. Nystagmus much less marked. No optic neuritis. 7th day, temperature 100° . Respirations 20. Pulse 112. Nystagmus almost disappeared. Conjunctivæ very faintly tinged. Urine 1018; neutral; trace of albumen; ? bile present. 8th day, better. Temperature, respirations, and pulse lower. Frontal headache less severe. Complains of great hunger and thirst. 9th day, pain across forehead and eyes is very severe. Lies on back or left side with eyes covered, since light intensifies headache. Pulse 118. Respirations 18. Temperature rose to 101.5° . Still hungry and thirsty. Jaundice still present. Urine 1012; ammoniacal; trace of albumen; no sugar or bile. Has passed 91 ounces in the last 12 hours. 10th day, improvement; frontal headache less. Temperature fallen to 99° . Lies on back, with legs extended and arms in different positions. Opens her eyes much more frequently. Urine 69 ounces in 24 hours. 11th day, thirst still extreme; consumed 7 pints of fluid in 24 hours. Urine 1018; large amount of

blood; trace of albumen; no sugar; alkaline. Temperature rose rapidly to 102·8° in the afternoon. Fifty-eight ounces passed. 12th day, thirst less. Temperature fallen to 99·2. Pulse 100, strong and steady. Urine 58 ounces passed; albumen, no blood or sugar. Eyes practically steady; no optic neuritis. No nervous symptoms. Lies naturally in bed. Wound dressed; healed well. Progress steady towards recovery; fever ceasing and amount of urine becoming normal. Got up on 31st day; no giddiness or headache. Mental condition unimpaired. Discharged cured on 35th day.

Fatal cases.

1. *Gunshot-wound of skull.*—W. G—, male, æt. ? Was found lying on Wimbledon Common with bullet-wound at root of nose. Conscious. Was walking away, when person returned with assistance. Gradually became unconscious. On admission, unconscious; bullet-wound at left side of root of nose; skin around scorched, and particles of powder embedded in it. Left eye was closed from hæmorrhage into lids and orbit. Right pupil contracted and inactive. Breathing stertorous, 40 per minute. Pulse very irregular, 50 per minute. Head strongly turned to left. Knee-jerks very brisk, and ankle clonus marked, especially on left side. Operation. Wound enlarged; bullet had destroyed the ethmoid plate and cut through the optic nerve. Trephine hole made in temporal region above external auditory meatus. Membranes bulged. Dura incised, and great quantity of blood-clot escaped; more clot removed; hæmorrhage from base of skull. Wound closed. Death in few hours. P.M.—Bullet had passed through the orbital plate of the frontal bone and destroyed the roof of the ethmoid; the optic foramen was carried away; the optic nerve, carotid artery, and cavernous sinus all divided. Bullet in the left ventricle, which was filled with blood. Extensive extravasation of blood over base and sides of brain.

2. *Compound depressed fracture of occipital bone.*—H. C—, male, æt. 5. Was knocked down by a bicycle, the handle of the bicycle bell striking him on the back of the head. Much hæmorrhage. Admitted collapsed, with depressed fracture of right occipital bone and wound of the lateral sinus. Occipital artery divided. Hæmorrhage arrested by gauze plugging. Infusion of 2 pints of saline into vein. Slight improvement. Rapid failure. Death 3½ hours after admission. P.M.—Fracture admitted tip of forefinger; lateral sinus punctured ½ inch to right of torcular. Inner table driven in over area of 1 inch. Laceration of posterior aspect of right lobe of cerebellum.

3. *Compound depressed fracture of frontal bone.*—W. E—, male, æt. 32. Bricklayer. Fall from window. Admitted comatose. Pulse feeble and running. Compound depressed fracture of left side of frontal; no protrusion of brain. Fractured jaw and femur. Hæmorrhage from nose and mouth. Death within an hour. P.M.—Upper lobe of right lung in state of grey hepatisation. Pleurisy over this lobe. Liver fatty. Cloudy swelling of kidneys. Depressed fracture of lower part of frontal bone extending into orbit and to cribriform plate, which was comminuted. Lower jaw fractured through symphysis. Right femur fractured transversely in lower third. Subdural hæmorrhage over left occipital lobe. Hæmatoma of anterior abdominal wall.

4. *Compound depressed fracture of frontal bone.*—E. J. D—, male, æt. 7. Fell on to a heap of stones. Admitted comatose. Punctured wound at inner angle of left orbit, from which brain matter was protruding. Stertorous breathing.

Fits every few minutes, during which back became arched and legs and arms contracted. Movements more marked on left side. Eyes turned to left during fits. Death shortly after admission. P.M.—Wound led into cranial cavity; roof of orbit driven in and embedded in left frontal lobe. Wound of brain was an inch in depth, and admitted index finger; led into lateral ventricle, and also opened the fissure between the two hemispheres. General subarachnoid hæmorrhage over hemispheres, and also at the base of the region of the optic chiasma. Blood in all the ventricles.

5. *Compound depressed fracture of frontal bone.*—A. R—, male, æt. 51. Waiter. Twenty-three days before admission fell off a brake and was kicked by a horse on the head. Became unconscious, and taken to Epsom Infirmary; scalp wound. No hæmorrhage from nose or ear. During his stay at the infirmary he was stupid, not realising what was said to him. Temperature at first was 100° and then became normal; 3 days before admission to hospital it rose to 103.6° . On examination, healed scar in frontal region, with ? depression beneath it. Partially comatose; does not understand questions, either written or spoken. Mumbles something when spoken to, no matter what is said. Pupils equal and small; no optic neuritis. Pulse feeble. Was noisy at night; controlled by bromide or chloral. Pulse averaged 80. No alteration in condition until 12th day, when expectoration, cough, and dyspnœa. Pulse rose to 140, and later 152, and temperature to 106.6° before death. P.M.—Depressed fracture of left frontal bone. Frontal lobe was extensively softened and stained with hæmatoidin. No brain abscess. Left pleura was firmly adherent in upper part, and contained several fibrous nodules. Lungs congested, with many patches of broncho-pneumonia. Heart fatty and dilated. Liver fatty. Kidneys contained 3 cortical cysts; uratic deposits in apices of pyramids.

6. S. H—, male, æt. 54. Platelayer. Struck by locomotive. Admitted unconscious, with depressed fracture of frontal bone measuring about 3 inches transversely. Respiration rapid, with some stertor. Compound fracture of left humerus; right hand crushed and left foot pulped. Wounds dressed. Death in few hours. No P.M. report.

Fractured base.—Males 11, females 2. C. 10, R. 1, D. 2. Middle fossa 11; anterior, middle, and posterior fossæ 2; facial paralysis 1; muscular twitchings 1; glycosuria 1; Colles' fracture 1; scalp wound 1; wound of chin 1; of forearm 1. Hæmorrhage from ear 12; nose 1; nose and ear 1. Permanent loss of mental faculties 1.

Fatal cases.

1. P. G—, male, æt. 23. Carman. Fall from dicky of van on to head. Concussion. Admitted comatose. Right pupil dilated and fixed, left small; neither reacted to light. Small scalp wound in left occipital region. Hæmorrhage from nose. Stertorous breathing. Pulse full and slow. Pulse became more feeble and irregular. Temperature rose to 105° . Death in few hours. P.M.—Extensive laceration of middle and inferior convolutions of right frontal lobe, and also of outer aspect of right temporo-sphenoidal lobe. Much blood effused over this area, and also at base. Fracture ran from left of occipital protuberance across lateral sinus and posterior fossa, and then again crossed the lateral sinus, breaking the jugular process, separated petrous from basilar, crossed the carotid foramen, divided the sella turcica, and ended on the upper aspect of the sphenoid. Cyst

of pineal body. (*Vide* 'Transactions' of Pathological Society.) Dense adhesions at right apex; obsolete tubercle at left.

2. A. W. F—, male, æt. 1½ years. Knocked down by van. Admitted comatose, with hæmorrhage from nose and ear. Pupils equal and dilated. Pulse rapid and feeble. Death in few minutes. P.M.—Fracture of base, involving all the fossæ extending into cribriform plate and across the right tympanum. Occipital bone broken transversely above the groove for the sinus. Articulation of frontal and sphenoid bones was separated. No damage of cerebral substances. Organs healthy.

Simple fracture of base and vertex.—Males 4, females 1. D. 5.

Fatal cases.

1. M. H—, female, æt. 57. Fall of fifteen feet down flight of stairs backwards. Admitted comatose. Corneal and conjunctival reflexes absent. Hæmorrhage from mouth and nose. No radial pulse detected. Death in few minutes. P.M.—Hæmatoma of scalp over right occipital bone, fissured fracture ran from here ending in the foramen magnum. Posterior clinoid processes detached. Fluid blood in posterior fossa with clotted blood above upper part of spinal cord. Subarachnoid hæmorrhage over left anterior cerebral convolutions. Right lobe of cerebellum lacerated. Larger cerebral arteries atheromatous. Œdema and congestion of lungs. Frothy blood in trachea and bronchi. Hypertrophy of ventricles. Atheroma of root of aorta and of ventral and aortic valves; two of the latter being adherent. Kidneys granular.

2. J. W—, male, æt. 5. Fell from a third story window. Admitted comatose with hæmorrhage from nose. Pupils equal and inactive. Pulse small and feeble. Hæmatoma of scalp. Fracture detected in right parietal bone. Death in few hours. P.M.—Fracture started at right parietal eminence, ran forwards and then downwards, passing across the right anterior fossa. Anterior clinoid processes detached. Superficial laceration of brain on under surface of right frontal lobe. Organs healthy.

3. W. W—, male, æt. 36. Found staggering about the street with a scalp wound. Admitted comatose with scalp wound in occipital region; large hæmatoma in left temporal region. Pulse full and regular. Respiration noisy. Pupils dilated and inactive. Incontinence of urine. Failure of pulse and respiration. Death in few hours. P.M.—Fracture ran forwards across all the fossæ starting from just to the left of the mid-line of the occipital, ending on the orbital plate of the frontal; small portion of squamous portion of temporal isolated; second fracture also ran forwards and ended in the foramen magnum. Large subdural hæmorrhage over cerebral surfaces on both sides, more extensive on right. Aorta atheromatous.

4. *Ruptured middle meningeal artery.*—W. M—, male, æt. 21. Thrown from bicycle on day preceding admission; was unconscious for several hours, then recovered sufficiently to return to London by train. Became comatose during night. Facial paralysis developed, with muscular twitchings of left side of body. Admitted deeply comatose, pupils unequal; the right being dilated and inactive. Temp. 105°. Pulse feeble and intermittent. Twitchings of left side of face, left arm and leg. Right limbs rigid. Death within an hour, before operation could be started. P.M.—Abrasion over right malar bone. Large extra-dural

hæmorrhage on right side several ounces in amount, in situation of middle meningeal artery. Fracture started at the foramen rotundum and ran outwards and forwards along great wing of sphenoid, fracture crossed the line of the artery half an inch behind the articulation with the frontal bone, and then mounted for an inch on the frontal bone. Rent in vessel where crossed by fracture easily admitting probe. Brain slightly flattened but otherwise healthy.

5. *Simple depressed fracture of occipital and base.*—W. G—, male, æt. 2. Fall down flight of stairs. Admitted comatose. Pupils un equal, the left being the larger; inactive. Pulse feeble and rapid. Facial paralysis developed on left side, and also a squint. Fits with rigidity of limbs. Death in few hours. P.M.—Depressed fracture on the upper part of the right occipital bone which then ran downwards, outwards, and forwards, crossing the groove for the lateral sinus, which was torn, the posterior fossa being filled with blood. Laceration of right cerebral and lateral lobe of cerebellum. Emphysema of margins of lungs with few areas of collapse.

6. *Simple fracture of base and vertex.*—W. K—, male, æt. 34, whitesmith. Two days before admission fell backwards from a ladder on to his head, a distance of about eight feet. Walked to the hospital the following day, discharge of cerebro-spinal fluid from left ear; refused admission. Admitted the following day; was then able to walk; partially unconscious; could not speak clearly. Pulse 60, temp. 103°. Vomited. Became comatose. Retention of urine, and fæces passed unconsciously. 2nd day, restlessness and vomiting; lies on side; temperature raised; pulse 92 to 136. Discharge from ear ceased. 3rd day, quieter on the whole, with fits of restlessness. Temp. 104°; pulse 112; resp. 56. Retraction of head. Coma increased, and he died on 4th day. P.M.—Left fronto-occipital suture was started, and fracture extended from it across the left tympanum, tearing the membrani tympani. Left frontal lobe much bruised. Commencing suppurative and basal meningitis. Lungs intensely engorged and very short of air. Liver fatty.

Compound depressed fracture of vertex and base.—Male 1. C. 1.

E. S—, male, æt. 25, labourer, struck by hammer thrown from a short distance; was not concussed. On examination, compound slightly depressed fracture of right frontal bone at position of temporal ridge. Hæmorrhage and escape of cerebro-spinal fluid from ear. No other symptoms. Discharge of cerebro-spinal fluid profuse later, gradually diminishing, ceasing on 10th day. Discharged cured on 19th day.

Impacted tooth-plate in pharynx.—J. B—, male, æt. 34. Swallowed a tooth-plate on night preceding admission. Tooth-plate consisted of six teeth with plate for upper jaw without hooks, but plate is broken. Woke with feeling of suffocation, retching. Two attempts at removal before coming to Hospital. On examination nothing felt externally, but plate easily felt from mouth. Pain at level of cricoid cartilage. Cannot swallow. Attempted extraction without anæsthetic. Extracted without much difficulty under anæsthesia on following day. Temperature rose to 103° on 3rd day with difficulty of breathing. 4th day, respiratory difficulty, and cellulitis of neck. Incisions allowing escape of fœtid pus. Increased difficulty of respiration with failure of strength. Temperature rose to 103·8°. 10 c.c. of antistreptococcus serum injected. Death on 4th day. P.M.—Laceration of pharynx on right side at level of glottis; beneath this and

communicating with its small cavity about half an inch long. Behind pharynx the cellular tissue is infiltrated with fœtid pus; condition extends into posterior mediastinum, and also present, but much less marked, on anterior aspect and in anterior mediastinum. Right ary-epiglottic fold slightly œdematous. Right pleurisy in lower half of chest. Hypostatic œdema in both lungs. Recent vegetations on aortic valve.

Punctured wound of neck.—H. N—, male, æt. 47. Smith. Was stabbed in the neck behind the left sterno-mastoid. Admitted with profuse hæmorrhage, which was arrested by forcipressure and plugging. Wound enlarged under anæsthetic; internal carotid artery punctured, was ligatured in two places and divided between. Phrenic nerve—completely and the vagus partially divided; former united by suture. No respiratory difficulty noted. Infusion of normal saline 1 pint 15 oz. in median basilic vein. Hæmorrhage recurred in few minutes after leaving the theatre, death almost at once. P.M.—A small opening was found in the internal jugular vein which had not been ligatured.

Cut throat.—Males 8, C. 6, D. 2. Suicidal 8; thyro-hyoid space 4; thyroid cartilage 3; tracheal space 1. Air passages opened 2.

Fatal cases.—I. B. B—, male, æt. 43. Carpenter. Suffered from heart disease; was told by doctor that he would not live long; this induced him to cut his throat. Admitted with wound over thyroid cartilage. Sutured. Jaundice. Death on following day. P.M.—Three pints of bile-stained fluid in right pleura. Right lower lobe solid from a number of damson cheese infarcts with collapsed lung between them. Few infarcts in upper lobe. Left lung tough and deficient in air. Great dilatation with some hypertrophy of heart. Valves slightly atheromatous but competent. Decolourised clot in right auricular appendage. Liver nutmeg. Cardiac kidneys.

2. F. B—, male, æt. 57. Upper rings of trachea and crico-thyroid membrane divided; infra-hyoid muscles also cut. Severe hæmorrhage. Bleeding arrested and low tracheotomy performed. Death in few minutes. P.M.—Extreme emphysema with general dilation of the bronchi, particularly of the smaller ones; several small localised bronchiectases with fibrous capsules. Heart enlarged. Pia-arachnoid thickened with excess of fluid. Brain extremely congested.

Wounds and contusions of thorax.—Males 13, females 2. C. 15.

Bullet wound of thorax.—G. S—, male, æt. 38. Clerk. Shot himself with a revolver. Admitted with great collapse. Small circular jagged wound just internal to and slightly below the left nipple; no external hæmorrhage. $\frac{1}{100}$ grain of strychnine was given subcutaneously. Slowly improved. Seven hours after admission there was surgical emphysema around the wound, in the axilla and up to the clavicle. Air entered left side of chest badly—breath sounds faint; a few râles audible in axilla and over cardiac area. Cardiac dulness began at 4th rib. 2nd day, temperature rose to 100°. Pulse 90, fairly strong. Respirations 26, quiet. Slight hæmorrhage from the wound. Expectorated frothy blood. Emphysema extensive, large cushion over præcordial area. Bullet palpable at vertebral border of scapula beneath skin of back. 3rd day, no alteration; still expectorating some blood. Temp. 99°. 4th day, good resonance obtained over front of left chest with a very tympanitic note in the axilla. Posteriorly there was dulness almost from apex to base, with diminished breath

sounds and vocal fremitus. Tubular breathing audible over small area in lower axilla. Breath sounds elsewhere have a hollow character. 6th day, temperature still varying between 99° and 100° . No alteration in signs in chest. Respirations 30. Ecchymosis over a patch $4\frac{1}{2}$ inches in diameter over left side below axilla. Expectorating some old blood with unstained mucus. 7th day, temperature fallen to normal. Complaints of shortness of breath and pain in left axilla. Expectoration of blood ceased. Progress satisfactory. Bullet removed on 12th day. Emphysema only limited to wound and upper part of left axilla. Respirations 32. 14th day, practically no cardiac dullness. Heart sounds very faint. Apex-beat not palpable. Progress good, occasional pain in left axilla. Emphysema disappeared by 23rd day. 31st day, cardiac dullness began at 4th rib, and heart sounds easily audible. Left chest rather retracted, and expansive movement very limited. High-pitched tubular breathing in axilla with pectoriloquy and similar though less marked signs behind. Dullness behind unchanged. Vocal fremitus present over whole of left lung behind. One or two metallic tinkling sounds heard in the front of the axilla. Bell sound not obtained. Further improvement. Discharged cured on 46th day.

Fractured ribs.—Males 11, females 4. C. 11, D. 4. Emphysema 2; pneumothorax 1; injury of lung 6; ruptured bronchus 1; bronchitis 1; fractured tibia 1; fibula 1; scalp wounds 2; wound of buttock 1.

Fatal cases.—1. S. W.—, male, æt. 45. Carman. Thrown from van, wheel passed over thorax. Admitted with fractured ribs on right side and internal malleolus of tibia. Respiration rapid and feeble; later became laboured. Cyanosis. Death on 2nd day. P.M.—2nd to 6th ribs fractured on right side 2 inches from junction with costal cartilages. Loose right pleural adhesions; denser adhesions at the apex; contained a quarter of a pint of blood-stained fluid. Left loose pleural adhesions with half pint of clear fluid. Edema of lungs.

2. D. T.—, male, æt. 40. Carman. Squeezed between the tail-board of his cart and a van. Admitted with fractured right ribs and lacerated wound of left buttock. Dullness in right flank not shifting. No rigidity of abdomen. Pulse 100 on admission, later increased in rapidity. Vomited. Became restless. Temperature rose to $103\cdot4^{\circ}$. Pulse gradually failed. Death on 2nd day. P.M.—Fractured 5th to 9th ribs on right side in mid-axillary line. No blood in pleura. Extensive extravasation had worked its way down into right flank and surrounded the kidney, which was normal. Pneumonic tuberculosis of left upper lobe; scarring at right apex. Liver fatty.

3. *Ruptured bronchus.*—J. C.—, male, æt. 9. Fall from the roof of a van. Admitted collapsed, with rapid respirations, 56 per minute. Shortly after admission surgical emphysema started on front of chest and rapidly extended to neck and abdomen. No fractured ribs detected. Temperature rose to 102° . Vinum Antimoniale mij given every hour. No relief. Respiratory rate fell to 52. Pulse averaged 140 to 152, and became weaker. Cyanosis. No signs detected in chest on account of emphysema. Death on 2nd day. P.M.—1st, right rib broken at greatest convexity, 3rd to 5th at their angles. Right lung completely collapsed. Slight basal pleurisy, and chest on this side was three parts full of blood-stained fluid; it also contained air. Right bronchus half torn across at root of lung. Emphysema had extended into the mediastinum.

4. W. K—, male, æt. 37. Slater. Fall from roof across a balcony. Euphysema from left lower ribs to clavicle. No fractured ribs detected. Increasing difficulty of respiration. Death on 2nd day. P.M.—Left hæmothorax containing 4 pints of fluid blood; lung adherent at site of injury. Ribs below 1st fractured in an oblique line down and out towards the posterior part of the axilla. Left lower lobe deeply lacerated, with small rupture in upper. Right upper lobe contained a little inspired blood. Lower completely collapsed. Fibroid tubercles.

Fractured spine.—Males 4. C. 1, R. 1, D. 2.

Fractured spinous process.—1. J. B—, male, æt. 29. Carter. Fell off a cart and wheel skidded off his back. Admitted with fractured spinous process of 7th dorsal vertebræ. Crepitus and mobility obtained. No cord symptoms. Plaster of Paris splint. Discharged on 5th day.

2. S. C—, male, æt. 36. Six months previous to admission slipped on a piece of orange peel and fell; on rising, fell again across the kerb, which struck him in the small of the back. Paralysis of lower limbs. Incontinence of urine. Treated at cottage hospital and infirmary by rest. On examination no deformity of spine detected. Spasm of legs, see-saw movement, both spontaneously and on inspection. Legs often drawn violently up. No wasting of limbs. Penis sometimes erected. No knowledge or control of defæcation or micturition. Distension of bladder not recognised. Knee-jerks much increased. Patellar and ankle clonus. Tap contraction present but not well marked. Bladder fires off. Cremasteric reflex not obtained. Contractions of legs continued with variations in intensity, if one leg is extended the other is drawn up; legs alternate as regards position. Complained of tingling of fingers followed later by shooting pains down the arms. Discharged relieved on 58th day.

Fatal cases.—1. C. B—, male, æt. 19, railway porter. Fell from a height across an iron girder. Admitted collapsed, paralysis of trunk and limbs, and loss of sensation on trunk. Sensation could not be accurately determined. Scalp wound, left ear partially detached. Hæmatoma of neck and upper dorsal region. Death in two hours. P.M.—Spine of 6th cervical detached; attachments between 6th and 7th cervical vertebræ were loose, although the bones were in their proper positions. Spinal cord opposite 6th cervical vertebræ completely pulped. Slight hæmorrhage into the theca. 3rd, 4th, and 5th ribs were fractured near their angles, and their heads were dislocated forwards. Lung not damaged.

2. G. N—, male, æt. 29. Miller. While stooping was struck in the back of the neck and shoulders by a 2-cwt. sack falling from a height. On examination, complete paralysis of limbs and trunk. Anæsthesia below clavicles. Priapism. Breathing diaphragmatic, with rapid failure. Death in few hours. P.M.—Spinous processes of fourth and fifth cervical vertebræ broken off, with some degree of comminution; anteriorly a gap of half an inch between the bodies, with rupture of the anterior common ligament. Hæmorrhage into spinal canal. Cord pulped at level of fracture. Right pleura adherent. Lungs cedematous.

Penetrating wound of abdomen; protrusion of gut.—E. W—, male, æt. 10. Fall on to some spiked railings. Admitted with small wound above and to the right of the umbilicus, with a knuckle of small gut protruding. No shock or vomiting. Gut washed with 1 in 2000 solution of corrosive sublimate and re-

turned. Two hours later wound enlarged and edges trimmed; some omentum which protruded was ligatured and removed. Wound healed by first intention. No abdominal symptoms. Attack of pneumonia followed by an empyema, for which a rib was resected and drainage secured. Discharged cured on 35th day.

Stab of abdomen.—A. McC—, male, æt. 18. Grocer's assistant. Was stabbed, during a quarrel, in the left iliac region. Admitted somewhat collapsed and pale. Pulse 96. Punctured wound just above Poupart's ligament. Probe could not enter abdomen. Wound explored under anæsthetic; it had passed downwards and outwards, entering just above Poupart's ligament, cutting that structure and notching the bone about the level of the anterior superior spine of the ilium and just notching the skin. It had just divided the peritoneum for $1\frac{1}{2}$ inches; though this a piece of omentum protruded. No blood in peritoneal cavity or injury to bowel. Wound sutured. Slight suppuration. Discharged cured, with exception of anæmia, on 24th day.

Ruptured kidney.—Males 5, females 1. C. 5, D. 1. Hæmaturia 6, considerable dulness in flanks 2; traumatic hydronephrosis 1; paralytic distension of gut 1; fractured ribs 1.

Ruptured kidney; traumatic hydronephrosis.—B. H—, male, æt. 7. Was run over by a hansom heavily loaded with luggage. Admitted in a collapsed state. Bruise on back and right side, marking out the wheel of the cab. Small scalp wound. He vomited a slight amount of blood on admission. On examination, ill-defined swelling in right loin with rigidity of muscles. Swelling dull, dulness extending to level of umbilicus. Hæmaturia. Improved after admission. Bowels acted. Pulse later became feeble. Three minims of Liq. Strychninæ with 8 minims of brandy given hypodermically. Vomited again after palpation of loin. Temperature rose to 98.4° . 2nd day, vomited during the night. Some pain and restlessness relieved by morphia hypodermically. Pulse 104. Passed 19 ounces of urine during preceding twenty-four hours; contained a large amount of blood; equally diffused. No clots. No increased frequency of micturition. 3rd day, fairly quiet during the early part of the night. Vomiting persisted. Complained of pain and tenderness in right lumbar region, causing him to lie on right side. Rectal feeding instituted. Vomiting ceased. Urine contained blood in gradually lessening quantity. Tenderness in lumbar region ceased, but definite swelling first felt here on 10th day. Hæmaturia ceased on 15th day, when definite fluctuating renal swelling could be detected, extending as low as the level of the umbilicus. Renal swelling gradually increased. Aspirated on 27th day, 18 ounces of clear, light yellow fluid withdrawn. Renal swelling entirely disappeared. The fluid was alkaline, containing albumen, phosphates, and chlorides. No urea. Microscopically there were epithelial cells, both squamous and columnar, together with small mononuclear cells, a few leucocytes, and two bodies resembling epithelial tube casts. Swelling increased after aspiration, but gradually disappeared. Urine also contained albumen, which also disappeared. Discharged cured on 53rd day.

Ruptured kidney; paralytic distension of gut.—G. J—, male, æt. 6. Run over, the wheel of a cart passing over lower ribs. Brought to hospital some hours later on account of hæmaturia. On examination, no shock, complains of pain over lower ribs. Fractured 7th, 8th, and 9th ribs on right side. Rigidity

and impairment of resonance in right lumbar region. Urine contained a fair amount of blood. Thirty-six hours after the accident (2nd day), the temperature rose to 100°; pulse 130, feeble; and the abdomen became distended and tender. No fluid detected in abdomen. Bowels were open twice during the day. Median cœliotomy at level of umbilicus, small gut distended, no evidence of peritonitis or hæmorrhage into peritoneal cavity. No signs of rupture in kidney could be felt. Loop of small gut drawn outside, punctured and drained. Wound in gut closed with single row of Lembert stitches. Vomiting persisted after operation. Rectal feeding. Mag. Sulph. in 15-gr. doses given every 4 hours. Small result after enema. Abdomen became slightly more distended and rigid. Abdominal facies. 4th day, slight improvement, vomiting less marked. Returned rectal feeding. Pulse 120. Tongue brown and furred. Temperature fallen from 100° to 98°. Morphia $\frac{1}{4}$ gr. given hypodermically; some sleep followed. Vomiting still persistent, relieved by cocaine. From this date gradual improvement, pulse becoming slower and stronger and the face regaining its normal appearance. Discharged cured on 18th day.

Fatal case.—R. U—, male, æt. 3. Run over by a hansom. Admitted very restless, complaining of pain in the left side. Slight dulness in left flank. Catheter drew off smoky urine, the last drop or two being almost pure blood. Rapid collapse. One pint of normal saline injected into rectum. Death in few hours. P.M.—Extensive extravasation of blood behind peritoneum on the left side, reaching from the diaphragm to the pelvis. Kidney divided into two nearly equal halves. Other organs normal.

Ruptured liver.—Males 3. D. 3. Fractured ribs 2.

Fatal cases.

1. H. E—, male, æt. 15. Labourer. Thrown from back of coster's barrow on to ground. Admitted with moderately severe shock. Abdomen resonant, nothing abnormal detected. Temp. 100·2°. Pulse rose to 120 in the evening, and shifting dulness in left flank detected. Median cœliotomy; blood in peritoneal cavity, rent of peritoneum on posterior abdominal wall found. Failed on table. Abdomen closed. Death 4 hours after admission. P.M.—3rd to 5th right ribs fractured close to junction with costal cartilages. Small quantity of blood in right pleura and in peritoneal cavity. Superficial laceration about 3 inches long on upper surface of right lobe of liver; two other lacerations deeper in substance of organ. Contusion of right kidney and cæcum.

2. H. M—, male, æt. 7. Run over by hansom cab with two men inside. Admitted collapsed. Pulse 104. Tenderness and pain in epigastric region. Later became paler, yawning and restlessness. Pulse rose to 140. Dulness detected in left flank. Cœliotomy 5 hours after accident. Three pints of normal saline infused into vein. Free blood found in abdomen. Rent detected on under and posterior surface of liver. Incision over rupture and rent plugged with gauze. Death 8 hours after accident. P.M.—Small quantity of blood free in peritoneum, and extravasation in tissues around kidney. Rent in liver as described above.

3. T. W—, male, æt. 48. Carman. Tripped in road and fell on face, run over by omnibus. Admitted moribund. Fractured right lower ribs. Death in few minutes. P.M.—Surgical emphysema of right side of trunk caused by penetration of right lower lobe of lung by ribs. Hæmothorax. Five ribs below

the fourth were fractured at their convexities. Free blood in abdomen. Four vertical and parallel lacerations of no great depth on front of liver.

Ruptured gut.—Males 6. C. 2, D. 4. Colon 1; cæcum 1; small gut 4. Sub-diaphragmatic abscess 1; compound fissured fracture of frontal 1.

Treatment.—Celiotomy and suture of rent 4.

1. E. C—, male, æt. 37. Carrier. Was stooping and applying some ointment to a horse when it suddenly kicked out, striking him first with the hock and then with the hoof in the abdomen. He was “doubled up” and sweated profusely. Admitted three quarters of an hour after accident. Complaints of pain midway between umbilicus and pubes. No shock. Temp. 99.6°. Abdomen tender over an area the size of the palm of a hand just above the symphysis pubis, extending towards left iliac region. Percussion note over this area less resonant than over rest of abdomen. Abdomen rigid over this area. Vomited some bile-stained fluid. 4 p.m. (3½ hours after accident), great abdominal pain, restlessness, and groaning. Complaints of difficulty of respiration. Vomited twice. Area of tenderness greater and percussion note dull. Abdomen rigid. 6 p.m., pulse 100, condition otherwise unaltered with exception of pain relieved by fomentations. Operation 7.30 p.m.; median celiotomy below umbilicus. No free fluid found, but few pieces of semi-digested food. Gut here covered with little lymph. Gut further examined, ecchymosis of mesentery found with a perforation admitting the tip of the finger situated on the free border of the gut some few feet beyond the portion of gut whose mesentery was bruised. Mucosa slightly prolapsed at rupture. Coils of gut first examined were collapsed and corresponded to dull area. Rent closed by twelve Lembert sutures applied transversely to the long axis of the gut. Abdomen cleansed with marine sponges. No drainage. 9 p.m., pulse 112. Patient quite comfortable. 2nd day, pulse 88. Temp. 99°. Vomited once. Rectal feeding continued for two days. Progress eminently satisfactory. Some slight abdominal tenderness persisted for a week. Fed by mouth on 3rd day. Discharged cured on 37th day.

2. *Ruptured cæcum.*—F. N—, male, æt. 26. Machinist. A piece of wood, some 3 feet by 3 inches, which he was steadying with his abdomen while it was being sawn, was suddenly projected against him, striking his abdomen in the right iliac region. Did not lose consciousness, but vomited 10 minutes after the accident. Vomiting continued until admission to the hospital at 3.45 p.m.—three quarters of an hour after the accident. On examination, sweating slightly, breathing shallow, rapid, and accompanied by half-suppressed groan. Legs drawn up. Pulse 88. Temperature 99°. Slight graze of skin above right Poupart's ligament. Abdomen rigid and tender, more particularly in right iliac region. No obliteration of liver dulness or dulness in flanks. Catheter withdrew clear urine. 6 p.m., pulse 92, and weaker. Vomiting continued, bilious material being ejected. Abdominal pain and rate of respiration increased. 8.30 p.m., pulse 102, and weaker. 10 p.m., patient in a dazed condition. Abdominal rigidity and tenderness less. Pulse slower and stronger. No vomiting since 8 p.m. 11 p.m., has vomited twice; pulse weaker; abdomen again rigid. Slight increase of dulness in right flank. Sweating. Operation 11.15 p.m.; median celiotomy below the umbilicus; bruised omentum presented. Free fluid in belly, brownish muddy colour and milky consistence, with fæcal odour, and contained a small blood-clot. Pelvis filled with this fluid, and gut here covered with

lymph. Cæcum dark red, with longitudinal rent $1\frac{1}{2}$ inches long, only extending through the peritoneal layer, and a second transverse one at junction of cæcum and colon making a valve-like opening into the interior of the bowel. Extensive retro-peritoneal hæmorrhage in right iliac fossa, with emphysema extending 3 inches upwards along the outer border of the ascending colon. Both rents closed with Lembert sutures. Abdomen irrigated with sterilised water. Gauze drain down to cæcum. Wound closed. No shock at operation, but pulse rose 1 hour later to 160. 2nd day, passed a restless night. No vomiting until given milk by mouth. One pint of water injected into the rectum. Temperature 100° , rising to 101.6° in the evening. Drain removed and wound closed. Pulse 84 to 120. 3rd day, took 9 ounces of milk during the night. Vomited once in the morning. Pulse 86. Temperature 100° . Abdominal distension. Mag. Sulph. 1 oz. given on 8th day, and followed by simple enema, with negative result. Enema repeated produced copious evacuation. Anxious expression of face 4th day. Mag. Sulph. continued, 1 ounce being given. Slight distension of abdomen; upper region now flaccid. 5th day, bowels well open. Temperature remains at 100° . Pulse 74. 6th day, great improvement. Face has lost anxious expression; pain less. Abdomen flaccid and resonant. Tenderness in right iliac region. Progress satisfactory. Suppuration where plug was inserted. 27th day, small tumour size of hen's egg just above right Poupart's ligament, slightly tender. Discharged cured on 40th day.

Ruptured transverse colon.—G. H—, male, æt. 62. Attendant. Knocked down by a van and kicked in the abdomen by the horse. Complained of severe abdominal pain. On examination abdomen not tender, moved. No alteration of dulness. Pulse rapid; no vomiting. Restlessness. Became collapsed and died in few hours. P.M.—Peritoneum contained free gas and about a pint of turbid offensive brown fluid. Coils of gut injected and slightly glued together. Transverse colon bent down nearly to pelvis, and most dependent part of loop was extensively bruised for 3 inches; small rent near mesenteric border in this situation. Walls of gut infiltrated with blood clot which appeared to separate its coats. Great omentum was involved in a left inguinal hernia. Lungs short of air and much congested; the right was firmly adherent from apex to base. Heart large; myocardium fatty and very soft. Organs decomposed.

Ruptured small gut.—W. H—, male, æt. 41. Railway porter. Caught between the buffers of two railway trucks. On admission, slight abrasion in right iliac region. Complained of pain across lower abdomen. Abdomen slightly tender at site of abrasion; moved well; no dulness in flank. Pulse good. Temperature 98° . No evidence of shock. Nausea, but no vomiting. No thirst or sweating. 2nd day, no alteration in condition until the evening, when temperature rose to 102° . Pulse became much more rapid and feeble. Respiration rapid. Eyes sunken. Abdomen was tender but not distended. No free gas or fluid detected. Rapidly failed, so that operation was not justifiable. Vomiting just before death on morning of 3rd day. P.M.—Rent in ilium about the size of a threepenny piece on free border of gut. Lymph on gut in neighbourhood of rupture. Free blood in belly, with small quantity of fæces. Small quantity of blood-stained fluid in pleuræ. Organs decomposed.

Ruptured gut; compound fissured fracture of frontal bone.—F. K—, male

æt. 7. Fell 8 feet from a window across a railing, and at the same time striking his head on a coping beneath the rail. On examination, at 9 p.m., four hours after the accident, small compound fracture of external table of frontal bone; no concussion. Line of bruising extending transversely across the abdomen at the level of the anterior inferior spine of the ilium. Belly wall moved well, except at its extreme lower part. Liver dulness not obliterated. No abnormal dulness detected. Slight tenderness in lower abdomen. Pulse 120, feeble. Temperature 97.4° . Catheter withdrew normal urine. Did not complain of thirst. 2nd day, 11 a.m., passed a fair night but retched on several occasions. Complained of no pain. Somewhat thirsty. Hot water taken by mouth. Temperature 103.4° . Pulse 120. Abdomen moved well, with doubtful extension of immobility upwards. No alteration on percussion or palpation. Bowels not open. Vomited after milk at 12.30 a.m. Later the abdomen became distinctly more rigid and tender, especially in the hypogastric region, where an area of dulness was detected extending towards the right iliac fossa. No dulness elsewhere. Thirst increased. The movement of the abdomen varied slightly from time to time. Operation 26 hours after injury. Median cœliotomy below umbilicus, lymph on gut, and also surrounded the appendix; no perforation was here detected. Adhesions broken down, and rupture seen in ileum close to cæcum. About 1 drachm of fluid fæces free in peritoneal cavity, with sero-purulent fluid in pelvis. The rent was on free border of gut, and admitted tip of little finger. Mucosa prolapsed, almost completely closing the opening. Incision prolonged to right through rectus muscle. Rent closed with Lembert sutures. Abdomen irrigated with sterilised water. Gut distended; difficulty in suturing wound. Drainage-tube into pelvis and into iliac fossa. One seventh grain of morphia given after operation. Pulse failed, but improved after digitalis and brandy injected. Never recovered from shock; death 10 hours after operation. P.M.—General recent acute peritonitis; coils of gut glued together with lymph. Rupture 6 inches from cæcum; securely sutured. Small fracture of external table of frontal bone. Organs healthy.

Ruptured gut: sub-diaphragmatic abscess.—W. B—, male, æt. 27. (*Vide 'Lancet,'* December 10th, 1898.)

Ruptured bladder.—D. E—, male, æt. 50. Clerk. On the day of admission the patient, who had not passed water that day, fell down in the street when playing with his child; he did not strike any particular part of his body against anything. Was seen four hours after the accident; no shock, and said that he was sure that nothing serious was the matter with him. Pulse 80 and good. Abdomen a little rigid, especially on the left side, where the loin was dull, and dulness did not alter with position. Catheter drew off 6 ounces of blood-stained urine, which was ejected in a steady stream; no rent found with the instrument. 2nd day, patient's condition unaltered, or if altered, for the better; dulness had not altered in position, but the rigidity of the abdomen was less. What pain there was had shifted to the right side. Temperature rose to 101.4° at night; catheter withdrew 16 ounces of urine. 3rd day, temperature down. Abdomen a little rigid. Pulse a little over 100. Urine by catheter 15 ounces, quite clear. Evening, pulse 120, temperature 99° . Vomited once. Abdomen more rigid. Features a little pinched. Liver dulness gone. Cœliotomy, urinous fluid escaped; intestines slightly injected in places. Star-shaped rupture in bladder at upper

and back part. Rent closed with two rows of Lembert's sutures; moderately easy to do. Abdomen irrigated. 4th day, passed 10 ounces of urine naturally; quickly went down hill and died in the evening. P.M.—Slight injection of all the intestines, with some loss of polish. Some plastic peritonitis in pelvis and about bladder wound, which held well. Lungs emphysematous with old tubercle.

Fractured pelvis.—Males 10. C. 6, D. 4. Crest of ilium 6; compound 1; fractured femur 1; clavicle 1; spine 1; ruptured urethra 2.

Fatal cases.

1. J. T—, male, æt. 50. Stonemason. Crushed between two blocks of stone each weighing three quarters of a ton. Admitted collapsed, with fracture of right side of pelvis and fractured right femur in upper third. Hæmorrhage from urethra. Extravasation of blood in perinæum, scrotum, and abdominal wall. Death in few hours. P.M.—Pelvis fractured on right side, $1\frac{1}{2}$ inch anterior to sacro-iliac synchondrosis, also pubes splintered. Comminuted fracture of right femur in upper third. Membranous urethra ruptured. Extravasated blood to level of umbilicus.

2. T. S—, male, æt. 35. Clerk. Struck by railway engine. Admitted with severe shock; restless. Lacerated wound in right buttock. Infusion of two pints of normal saline into vein. Death in few hours. P.M.—Ischial tuberosity separated by fracture through ischial ramus, and another below the acetabulum. Front part of joint surface of right tibia separated. Heart fatty; liver, fatty cirrhosis.

3. J. A—, male, æt. 63. Carman. Hansom cab fell on patient. Admitted with fracture of right ilium and separation of ischial tuberosity. Hæmorrhage from urethra. Catheter could not be passed. Urine passed naturally. Dulness in right flank, not shifting. No extravasation of urine. Never recovered from shock. Death twenty-eight hours after admission. P.M.—Fracture of right pubic ramus, and above this fracture ran upwards across iliac fossa separating almost the whole of the ilium. Portion of ischial tuberosity detached. Complete rupture of membranous urethra, the ends being separated by nearly an inch. Retro-peritoneal hæmorrhage around ascending mesocolon and right kidney, and also in left iliac and lumbar regions. Right kidney atrophic, ureter patent, and exuded pus-like fluid on squeezing. Disease of cortex of left kidney. Tubercle at right apex.

Ruptured urethra.—Males 2. C. 2.

1. Fall astride post. Suture. Urethra took steel sound $\frac{2}{2}\frac{4}{8}$ on discharge.

2. Struck perinæum against bicycle saddle. Sutured; pulled catheter out during recovery from anæsthesia. Catheter could not be introduced. Re-suture on following day. Took steel sound $\frac{2}{2}\frac{0}{4}$ on discharge. (See also Fractured pelvis.)

INJURIES OF UPPER EXTREMITY.

Contusions and wounds of arm and forearm.—Males 4, females 2. C. 6. Ligature of ulnar artery 1; Thiersch grafts 1.

Wounds of hand.—Males 9, females 6. C. 14, U. 1. Divided flexor sublimis and profundus 3; flexor longus pollicis 1; flexor carpi radialis and longus pollicis 1; flexor sublimis 1; extensor communis digitorum 2; extensor primi internodii pollicis 1; extensor indicis 1; extensor minimi digiti 1. (*See also* Injuries to nerves.)

Treatment.—Suture of tendons; grafting 1.

Foreign body.—Needle in hand 12; bullet in hand 4; wrist 1. Extraction in 15; readmission 1; skiagram taken in all.

Divided median nerve.—Males 6; female 1. C. 7. Recent 4; old 3; with division of ulnar 1; cut tendons 5; immediate suture 4; resection and suture 2; exploration 1.

Divided ulnar nerve.—Males 3, females 2. C. 5. Recent 4; old 1; cut tendons 4; partially divided median 1; suture 4; freeing of bulb 1.

Dislocation of clavicle.—Male 1, female 1. R. 1, U. 1. Sternal end forwards 2.

Dislocation of humerus.—Males 3, females 9. C. 7, R. 4, U. 1. Subcoracoid dislocation 11; fracture dislocation 1. Reduction under anæsthesia of few hours' duration 2; 13 days 1; 14 days 1; 3 days 1; attempted reduction, 1 month 1; 6 weeks 2; 3 months 1; excision of head of humerus, 4 weeks, 1; subcoracoid dislocation with fracture of surgical neck 1.

Dislocation of phalanges.—Metacarpo-phalangeal 2; thumb 1; little finger 1; reduction 1; after open incision 1; Colles' fracture 1. Distal phalanges 2; compound 1; reduction by open incision 1.

Fracture of clavicle.—Males 2, female 1. C. 3. Colles' fracture 1. Sayre's strapping 2; massage 1.

Fracture of scapula.—Male 1. C. 1. Run over; angle broken off; bandage.

Fractured humerus.—Males 5, females 6. C. 10, D. 1. Middle third 1; lower third 2; surgical neck 5; upper epiphysis 2; fracture dislocation 1; external condyle 1; fractured ribs 1.

Treatment.—Screwed 1; pegged 1; exploration 1; massage 1; remainder with plaster-of-Paris splints.

Fatal case.—W. S., female, æt. 70. Fell down flight of stairs; admitted with fractured surgical neck of humerus and comminuted fracture of radius and ulna. Restlessness and noisy delirium at night; fever; incontinence of urine and fæces. P.M.—Cirrhosis of liver; chronic interstitial nephritis; opacity of brain membranes.

Compound.—Male 1. C. 1. Plaster of Paris.

Compound comminuted.—Males 2. C. 1, D. 1. Removal of fragments and wiring of olecranon 1; amputation of arm in upper third 1.

Olecranon.—Males 12, females 2. C. 12, R. 2. Ulnar nerve embedded in callus 1; compound 1; wired 7; scraped 1; remainder by plaster-of-Paris splints.

Compound fracture of radius and ulna.—Males 2. C. 2. Antiseptics and plaster-of-Paris splint 1; amputation at elbow-joint 1.

Compound fracture of metacarpus.—Males 2. C. 2. Ablation of hand 1; thumb 1; trimming and suture 1; antiseptics and plaster of Paris 1.

Phalanges.—Males 6, females 3. C. 9. Cut tendons 1; amputation at inter-phalangeal joints 1; metacarpo-phalangeal 7; resection 1.

INJURIES OF LOWER EXTREMITY.

Wounds and contusions.—Males 23, females 10. C. 32, D. 1.

Fatal case.—A. H—, male, æt. 7. Run over by a van which passed over both legs. Admitted collapsed. Right leg was severely lacerated and left was also bruised. Wound stitched and dressed same evening. Temperature rose to 103·8° on second day, and leg showed signs of gangrene. Amputation of thigh in middle third by anterior and posterior flaps. Infusion of two pints of normal saline into vein. Death in few hours. P.M.—Superficial abrasions on left leg, and skin torn from subcutaneous structures. Left kidney absent.

Foreign body.—Males 2, females 5. C. 7. Needle 6; bullet 1; skiagram and extraction in all.

Penetrating wounds of knee.—Male 1. C. 1. Septic arthritis; arthrotomy and irrigation; plaster-of-Paris splint.

Dislocation of hip.—Males 3, female 1. C. 4. Dorsal 3; thyroid 1; reduction under anæsthetic 4.

Dislocation of patella.—Male 1. C. 1. Edgeways; reduction.

Fractured shaft of femur.—Males 50, females 13. C. 63. Direct violence 27; indirect violence 32; not stated in remainder. Transverse 14; oblique 6; remainder not stated. Upper third 15; middle third 17; lower third 19; separation of lower epiphysis 2; internal condyle 2; refracture 3; double 2; comminuted 1; fractured humerus 1; radius and ulna 1; ulna 1; tibia 1.

Treatment.—Plaster of Paris only 13; plaster of Paris and long outside 2; plaster of Paris and extension 2; plaster of Paris, long outside, and extension 40; long outside and extension 1; Macintyre followed by plaster of Paris 1. Shortening noted on discharge: $\frac{1}{8}$ inch 1; $\frac{1}{4}$ inch 8; $\frac{3}{4}$ inch 5; $\frac{7}{8}$ inch 1; 1 inch 3; 1½ inches 1; no shortening 6.

Compound fracture of femoral shaft.—Females 2. D. 2.

1. R. S—, female, æt. 9. Run over by a train, which passed over the left

thigh. Admitted collapsed, with compound fracture of left thigh in upper third; large wound, vessels visible. Bruising of right thigh. Wounds cleaned. Never recovered from shock. Morphia given hypodermically. Pulse became gradually more feeble. Death on 3rd day. No P.M. report.

2. A. G—, female, æt. 75. Run over by omnibus. Wound cleaned under anæsthetic and long outside splint applied. Temperature generally subnormal. Cough. Incontinence of urine. Death on 8th day. P.M.—Body extremely fat. Organs not examined on account of decomposition.

Compound comminuted fracture of femoral shaft.—Male 1, female 1. C. 1, D. 1. Plaster-of-Paris splint, long outside, and antiseptics, followed by amputation of thigh in middle third 1.

Fatal case.—C. M—, male, æt. 40. Found on the railway line having been run over by train. On examination, left leg detached at junction of lower with middle third of thigh; right leg almost removed just below knee. Infusion of 3 pints of normal saline into vein. Morphia and brandy given hypodermically. Death within the hour. P.M.—Right seventh rib fractured; organs pallid but healthy.

Fracture of femoral neck.—Males 8, females 9. C. 8, R. 8, U. 1. Intra-capsular 10; extra-capsular 7; separation of epiphysis 1. No union 2, some union 3; remainder united well. Unimpacted showed $\frac{1}{2}$ inch shortening 2; $\frac{3}{4}$ inches 1; 1 inch 2.

Treatment.—Extension and long outside 4; long outside splint 2; long outside and sandbags 1; long outside followed by leather splint 1; sandbags 4, followed by leather splint 1; rest 1; long outside, plaster of Paris, and extension 1; subtrochanteric osteotomy 1.

Fracture of patella.—Males 21, females 3. C. 24. Right 16, left 8, direct violence 8; indirect violence 16; comminuted 1; separation of lower radial epiphysis 1; phthisis 1; fracture of opposite patella 5 years previously 1; old fracture 2.

Treatment.—Recent wiring 13; old case wiring 1; suppuration 1; remainder by Macintyre, icebag, and plaster-of-Paris splint.

Fractures of tibia and fibula.—Males 70, females 29. C. 99, right 42, left 53; remainder not stated. Direct violence 30, indirect violence 69. Middle third 5, lower third 48; Pott's 14; remainder tibia and fibula fractured at different levels. Fractured ribs 1; astragalus 1; concussion 1.

Treatment.—Macintyre followed by plaster-of-Paris splint 1; remainder by plaster-of-Paris splints.

Comminuted fractures of tibia and fibula.—Male 1, female 1. C. 2. Plaster-of-Paris splints.

Compound fractures of tibia and fibula.—Males 11, females 4. C. 15. Direct violence 8; indirect violence 7; middle third 1; lower third 14, including 1 fracture of internal malleolus.

Treatment.—Screwed 1; wired 1; tenotomy of tendo Achillis 1; sequestrotomy 1; plaster of Paris followed by Neville 1; remainder by antiseptics and plaster-of-Paris splints.

Compound comminuted fractures of tibia and fibula.—Males 4, female 1. C. 4, D. 1. Right 1; left 2; double 2; middle third 2; lower third 4; fractured femur 1; traumatic gangrene 1.

Treatment.—Plaster-of-Paris splints and antiseptics 2; amputation of thigh in lower third 2; amputation of knee 1; of leg 1; grafted 1.

Fatal case.—F. S—, female, æt. 4. Run over by cable tram. Admitted collapsed with compound fracture of right tibia and fibula in lower third with much crushing of soft tissues; the right femur was broken at its centre, and there was comminuted fracture of left tibia and fibula in middle third. Wound dressed and long outside applied. Brandy given hypodermically. Amputation of right thigh in lower third by flap method. Normal saline injected subcutaneously during operation, followed by infusion of normal saline, a pint, into vein. Collapsed after infusion. Strychnine given hypodermically with good result. Temperature rose to 103·6° after operation. Gangrene of left leg appeared on 5th day, a large portion of skin sloughing; dressed with antiseptics and placed in a Macintyre, afterwards replaced by a Neville. Temperature averaged 101° to 102°. Amputation at knee-joint on 15th day by long anterior flap; little hæmorrhage from flap. Temperature continued high; flap sloughed and femur projected. Boracic bath. Became gradually weaker and died on 25th day. P.M.—Acute osteomyelitis of right femur. Extensive broncho-pneumonia; several islets on the point of suppuration. Myocardium pale and soft; endocardium stained. Liver fatty. Cloudy swelling of kidneys.

Fractured tibia.—Males 5. C. 5. Right 2; left 3. Direct violence 1; indirect violence 4; middle third 1; lower third 2; tubercle 1; internal malleolus 1. Plaster-of-Paris splints in all.

Comminuted fracture of tibia.—Male 1. C. 1. Indirect violence 1; lower third 1. Plaster-of-Paris splint.

Fractured fibula.—Males 11, females 8. C. 19. Direct violence 3; indirect 16; lower third 10, including 8 Pott's fractures. Plaster-of-Paris splints in all.

Comminuted fracture of fibula.—Male 1. C. 1. Dislocation of foot outwards.

Compound comminuted fracture of fibula.—Male 1. C. 1. Wound of ankle-joint. Amputation of leg.

Fractured astragalus.—Male 1. C. 1. Fracture behind neck ran transversely to long axis with another running backwards; anterior fragment rotated on long axis; fragment removed.

Compound comminuted fracture of phalanges.—Male 1. C. 1. Amputation at metatarso-phalangeal joint.

SPECIAL TABLES.

SPECIAL TABLE I.

INGUINAL HERNIA.—*a. Strangulated*

No.	Occupation.	Sex.	Age.	Side.	Duration of hernia.	Duration of strangulation.	Structure of hernia.
1	Watchmaker	M.	52	R.	3 years	8 hours	?
2	Gardener	M.	20	R.	?	24 hours	?
3	—	M.	11 months	R.	11 months	8 hours	?
4	Cabman	M.	54	R.	Years ?	?	?
5	—	M.	74	R.	16 years	24 hours	?
6	Labourer	M.	70	L.	3 days	3 days	Enterocoele
7	Horsekeeper	M.	51	R.	8 years	3½ hours	?

b. Strangulated Irreducible

8	Labourer	M.	51	R.	2 years	11 hours	?
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c. Strangulated Irreducible

9	—	M.	1 year	R.	15 months	28 hours	Enterocoele
10	—	M.	1 year	R.	9 days	24 hours	Enterocoele
11	—	M.	20	R.	1 year	8 hours	Funicular

HEENIA.

Irreducible. No Operation.

Treatment.	No. of days in hospital.	Result.	Remarks.
Hot bath, taxis. Truss	2	C.	
Hot bath, taxis. Truss	2	C.	
Hot bath, icebag. Spontaneous reduction	1	C.	
Hot bath, icebag, taxis. Truss	5	C.	
Hot bath, taxis	6	C.	
Strychnine	1	D.	
Hot bath. Spontaneous reduction	3	C.	Hernia partially reducible; impulse. Moribund on admission. P.M.—Large coil of small gut deeply congested; general peritonitis; chronic interstitial nephritis.

Reduction followed by Radical Cure.

Spontaneous reduction after hot bath. Radical cure few hours later. M. Banks' method with silk	25	C.
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Ferniotomy and Radical Cure.

Congested cæcum and appendix with 2—3 inches of small gut replaced. Sac very thick; ligatured and ablated. Pillars sewn. Silk used throughout	22	C.	
Deeply congested small gut replaced. Sac ligatured and ablated with silk. Circumcision	23	C.	
Deeply congested small gut replaced. Bassini's method with silkworm gut	9	C.	
			Stricture at external ring. Blood-stained fluid in sac.

No.	Occupation.	Sex.	Age.	Side.	Duration of hernia.	Duration of strangulation.	Structure of hernia.
12	Scholar	M.	7	R.	7 years	10 hours	Funicular
13	—	M.	4 months	L.	4 months	?	Congenital
14	Labourer	M.	19	R.	15 hours	15 hours	Congenital
15	Carman	M.	57	R.	2 years	10 hours	Enterocoele
16	Labourer	M.	22	L.	10 hours	10 hours	Congenital
17	Carman	M.	23	R.	5 years	6 hours	Funicular
18	—	M.	$1\frac{4}{12}$	R.	6 months	3 days	Funicular
19	Bricklayer	M.	29	R.	3 years	3 days	Enterocoele
20	—	F.	62	R.	$2\frac{1}{2}$ days	$2\frac{1}{2}$ days	Enterocoele
21	—	M.	58	L.	9 years	33 hours	Enterocoele
22	Agent	M.	46	R.	12 years	7 hours	Enterocoele congenital
23	Coke dealer	M.	54	R.	3 years	28 hours	Enterocoele

Treatment.	No. of days in hospital.	Result.	Remarks.
Congested colon replaced. Sac ligatured and ablated. Pillars sewn. Testicle sutured to scrotum. Circumcision. Silk used throughout	19	C.	
Cæcum and appendix replaced. Sac ligatured and ablated. Pillars sewn. Silkworm gut used throughout	13	C.	Gut deeply congested.
Congested small gut replaced. Sac ligatured with silk and ablated. Macewen's stitch to pillars with kangaroo tendon	32	C.	Clear fluid in sac. Constriction at both external and internal rings.
Small gut replaced after drainage followed by suturing. Sac ligatured and ablated. Pillars sewn with silkworm gut	23	C.	Gut deep purple and thickened, blood extravasated into gut and mesentery. Great difficulty in reduction.
Congested small gut replaced. Bassini's method of radical cure	12	C.	
Omentum ligatured and ablated. Congested small gut replaced. Bassini's method with silk	10	C.	
Cæcum and appendix replaced. Sac ligatured with silk and ablated. Macewen's stitch with silkworm gut	11	C.	Gut only slightly congested.
Deeply congested small gut replaced. Sac ligatured and ablated with silk. Macewen's stitch with kangaroo tendon	1	D.	Clear fluid in sac; lymph on gut; well-marked constriction rings. P.M.—Strangulated loop 4 inches long, deeply congested; early peritonitis; gut matted 2 feet above cæcum by old peritonitis; parenchymatous nephritis.
Sac ligatured and ablated. Ring sewn. Silkworm gut used	18	C.	
Colon punctured; adherent to sac. Suture of ring with silkworm gut. Cœliotomy and suture of perforating cæcal ulcer 5 days later	6	D.	Perforation of cæcal ulcer 5 days later. P.M.—Old peritonitis round cæcum and sigmoid; 6 inches of ileum blackened; heart fatty; emphysema.
Congested small gut replaced. Canal slit up and sutured with silkworm gut	16	C.	
Congested small gut replaced. Bassini with silk	11	C.	

d. Strangulated Irreducible.

No.	Occupation.	Sex.	Age.	Side.	Duration of hernia.	Duration of strangulation.	Structure of hernia.
24	Shoemaker	M.	87	R.	16 years	20 hours	Enterocoele
25	—	M.	3 weeks	R.	3 weeks	6 days	Congenital, interstitial

e. Strangulated Irreducible.

26	Machinist	M.	37	R.	9 years	12 hours	Enterocoele
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FEMORAL

a. Strangulated Irreducible.

1	Packer	M.	25	R.	3 years	2 days	?
2	Fireman	M.	21	R.	2 years	10 hours	?
3	House-work	F.	52	R.	6 months	12 hours	?

Herniotomy only.

Treatment.	No. of days in hospital.	Result.	Remarks.
Perforation of bowel sutured after herniotomy	46	C.	Six inches of gut involved. Small perforation on convexity. Blood-stained fluid in sac with one apple pip.
Small gut deeply congested; replaced with difficulty	2	D.	Vomiting continued. P.M.—Terminal 6 inches of ileum with small portion of cæcum still strangulated in sac between external and internal oblique muscles; deeply congested, polish not lost; gut for 12 inches above congested; no peritonitis.

Herniotomy and Fæcal Fistula.

Portion of cæcum to outer side of anterior longitudinal band gangrenous; excised. Closure of artificial anus on 54th day	94	C.	Violent taxis by patient. Artificial anus closed by dissecting up mucosa and layer of muscular coat and inverting by Lembert sutures. Skin flap slid over line of suture. Sinus persisted for few weeks and then closed spontaneously.
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HERNIA.*Reduction followed by Radical Cure.*

Gut slipped back before sac opened. Ablation of sac with silk; suture of ring with silk	8	C.	
Hot bath; spontaneous reduction. Sac ligatured with silk and ablated. Pectineal fascial flap. Operation 6th day	17	C.	
Spontaneous reduction. Sac ligatured with silk and ablated. Ring sewn with silkworm gut. Operation same day.	30	C.	Hæmatoma of wound.

b. Strangulated Irreducible.

No.	Occupation.	Sex.	Age.	Side.	Duration of hernia.	Duration of strangulation.	Structure of hernia.
4	—	M.	46	L.	3 years	19 hours	Epiplocele
5	Widow	F.	60	R.	10 years	14 hours	Entero-epiplocele
6	House-work	F.	36	R.	6 years	8 hours	Enterocoele
7	House-work	F.	44	R.	6 months	4 days	Epiplocele
8	House-work	F.	41	R.	18 years	17 hours	Enterocoele
9	House-work	F.	40	R.	1 year	24 hours	Enterocoele
10	Nurse	F.	53	L.	6 months	2 days	Entero-epiplocele
11	House-work	F.	43	R.	5 years	2 days	Enterocoele
12	House-work	F.	33	R.	8 years	5 days	Enterocoele
13	Widow	F.	59	R.	27 years	24 hours	Enterocoele
14	—	F.	69	L.	2 years	14 hours	Entero-epiplocele
15	Housekeeper	F.	56	R.	1 year	4 days	Entero-epiplocele
16	House-work	F.	56	R.	2 years	3 days	Enterocoele
17	—	M.	63	L.	Years	11 hours	Entero-epiplocele
18	House-work	F.	60	R.	18 years	3½ days	Entero-epiplocele
19	House-work	F.	63	R.	?	2½ days	Entero-epiplocele
20	House-work	F.	40	L.	8 years	11 hours	Enterocoele

Herniotomy and Radical Cure.

Treatment.	No. of days in hospital.	Result.	Remarks.
Omentum ablated. Sac ligatured and ablated. Suture of ring. Horse-hair used throughout	13	C.	U-shaped bend in sac, which contained clear fluid.
Omentum ablated. Transverse colon replaced. Sac ligatured and ablated with silk	15	C.	
Congested small gut replaced. Sac ablated. Pectineal fascial flap. Silk used	16	C.	Blood-stained serum in sac.
Omentum ablated. Sac ligatured and ablated. Silk used throughout	15	C.	
Deeply congested small gut replaced. Sac ligatured and ablated. Pectineal muscle flap. Silk used	14	C.	
Small gut replaced. Sac ablated. Silk used	15	C.	Gut deeply congested.
Small gut and omentum replaced. Sac ablated. Suture of ring. Silk used	12	C.	Slight congestion. Much clear fluid in sac.
Small gut replaced. Sac ligatured with silk and ablated	14	C.	Gut plum-coloured.
Small gut replaced. Sac ligatured with silk and ablated	11	C.	Gut only slightly congested.
Cæcum and appendix replaced. Sac ligatured with silk and ablated	11	C.	Gut congested.
Omentum ablated. Small gut replaced. Sac ablated after ligature with silk	17	C.	Small gut congested.
Omentum ablated. Small gut replaced. Sac ligatured and ablated. Suture of ring; pectineal fascial flap. Silk used throughout	13	C.	Large mass of omentum, brownish in colour. Four inches of small gut chocolate colour; lymph on surface. Turbid fluid in sac.
Small gut replaced. Sac ligatured with silk and ablated	25	C.	Suppurated.
Omentum and small gut replaced. Sac ablated. Pectineal fascial flap. Silkworm gut used	12	C.	Gut plum-colour; well-marked constriction rings.
Omentum ablated. Sac ligatured and ablated. Ring sewn with silk	24	C.	Small gut chocolate colour with linear gangrene, which was invaginated.
Omentum ablated. Small gut returned. Sac ablated and ring sewn with silk. Enterotomy 2 days later	2	D	Gut purple with well-marked contraction rings. Vomiting and distension of belly. P.M.—General adhesive peritonitis; lower 15 inches of ileum purple with greyish-black patches.
Small gut replaced. Sac ligatured and ablated. Ring sewn with silkworm gut	11	C.	Gut purple.

c. Strangulated Irreducible

No.	Occupation.	Sex.	Age.	Side.	Duration of hernia.	Duration of strangulation.	Structure of hernia.
21	House-work	F.	45	L.	7 years	10 hours	Enterocoele

d. Strangulated Irreducible

22	House-work	F.	35	R.	4 years	2½ days	Enterocoele
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UMBILICAL

a. Strangulated Irreducible

1	Watchman	M.	56	—	Years	2 days	?
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b. Strangulated Irreducible

2	—	M.	48	—	3 years	2½ days	Ventral enterocoele
3	House-work	F.	41	—	3 years	2 days	Entero-epiplocele
4	House-work	F.	56	—	7 years	4 days	Enterocoele
5	Nurse	F.	41	—	17 years	24 hours	Epiplo-enterocoele

c. Strangulated Irreducible

6	House-work	F.	60	—	20 years	60 hours	Entero-epiplocele
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Herniotomy only.

Treatment.	No. of days in hospital.	Result.	Remarks.
Deeply congested; small gut replaced	14	C.	

Herniotomy, Resection, and Artificial Anus.

Herniotomy and resection of 8 inches of small gut. Artificial anus in mid-line with Paul's tube	8	D.	Gut gangrenous; no marked demarcation line. Fæces in sac. P.M.—Artificial anus 3 feet from cæcum; heart dilated and fatty.
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*HERNIA.**No Operation.*

Antiseptics	39	R.	Admitted with gangrene of bowel and fæcal fistula. Cellulitis of abdominal wall. Fistula diminished on discharge.
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Herniotomy and Radical Cure.

Small gut replaced. Sac twisted and ablated. Fascia sewn	25	C.	Gut plum-colour. Well-marked constriction ring.
Omentum ablated; small gut replaced. Sac ablated and stitched. Muscle sewn	22	C.	Gut congested.
Omentum ablated; small gut replaced. Sac ablated. Silkworm-gut sutures through abdominal wall	18	C.	
Omentum ablated; small gut replaced. Sac ligatured and ablated. Muscle flap from rectus	18	C.	Well-marked constriction rings.

Herniotomy, Resection, and Suture.

Resection of 5 inches of small gut. Union by Murphy's button. Enterotomy 2 days later	3	D.	Two and a half inches of gut gangrenous with perforation. Vomiting and distension of abdomen continued. At enterotomy union of button had partially sloughed. P.M.—Artificial anus 3 feet from cæcum; coils of gut above distended, with flakes of lymph.
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APPENDIX TO SPECIAL TABLE I.—

Initials.	Occupation.	Age.	Sex.	Side.	Duration of hernia previous to 1st operation.	Nature of primary hernia.	Method of radical cure of primary hernia.	Course of healing of primary hernia.	Interval since primary rad. cure
T. H.	Carman	24	M.	R.	3 months	Reducible inguinal	Sac ligatured and ablated; pillars sutured	Suppuration	13 months
S. S.	Clerk	28	M.	L.	10 months	Reducible inguinal, bubonocoele	Sac ligatured and ablated with silk; pillars sewn with kangaroo tendon	First intention	3 years and 10 months
G. C.	Labourer	25	M.	R.	1 year	Reducible inguinal	Sac ablated; pillars sewn with silk	First intention	5 months
H. J. P.	Horse-keeper	27	M.	L.	?	Reducible inguinal, congenital	Kocher's; sac ablated; pillars not sewn	Suppuration	14 months
W. L.	Dealer	27	M.	R.	11—12 years	Reducible inguinal	Sac ablated; pillars sewn with silk	First intention	15 months
W. B.	Sack-maker	21	M.	R.	6 weeks	Reducible inguinal	Macewen's; pillars with kangaroo tendon	First intention	15 months
E. J. B.	Midwife	38	F.	R.	6 years	Irreducible femoral	Sac ablated; pectineal flap	Suppuration	25 months
G. B.	Horse-keeper	31	M.	R.	3 weeks	Reducible inguinal	Sac ablated; Macewen's stitch with gold-beater's skin	First intention	18 months
H. H.	Driver	39	M.	R.	7 years	Reducible inguinal, scrotal	Sac quilted; pillars sewn; omentum ablated	First intention	4 years and 10 months
E. J. H.	Shopman	19	M.	R.	Few days	Reducible inguinal, bubonocoele	Sac ligatured and ablated; pillars sewn with silk	First intention	2 years and 8 months

Statement of Recurrent Hernia.

Nature of recurrent hernia.	Duration of recurrent hernia.	Method of radical cure of recurrent hernia.	Course of healing.	Remarks.
Reducible inguinal	3 months	Sac ligatured and ablated with silk; silk sutures to canal, and superficial row of silver wire stitches to aponeurosis	First intention	
Reducible inguinal	10 days	Kocher, with ablation of sac	Suppuration	Primary hernia double. No recurrence on right side.
Reducible inguinal	12 days	Bassini's method, with silkworm gut as sutures	First intention	Bulging of abdominal wall main part of recurrence. Heavy work at pottery.
Reducible inguinal	2 months	Sac twisted, ligatured, and ablated; suture of stump to ring	First intention	
Reducible inguinal	3 months	Hæmorrhage during operation; radical cure not completed	—	Severe hæmorrhage on table; arrested by ligature. Reactionary hæmorrhage. Infusion of saline on two occasions. Death in few hours.
Reducible inguinal	? weeks	Sac ligatured with kangaroo tendon and ablated; pillars sewn with silkworm gut	First intention	Appendix removed in 1896. No hernia of scar.
Reducible femoral	23 months	Sac ligatured and ablated; flap from external oblique	Superficial suppuration	
Reducible inguinal	?	Truss	—	
Reducible inguinal	Few months	Truss	—	
Reducible inguinal	3 months	Sac ligatured and ablated; pillars sewn with silk	First intention	Rides often; recurrence during riding.

SPECIAL TABLE II.—*Erysipel*

No.	Sex.	Age.	Disease for which admitted.	Ward in which it arose.	Duration in hospital before attack.	Probable cause of attack.	Month.
1	F.	43	Carcinoma of hand	Anne	10 days	Carcinomatous ulcer	April
2	M.	44	Recurrent carcinoma of cæcum	Clayton	17 days	Enterotomy	April
3	M.	48	Recurrent epithelioma of tongue	Edward	23 days	Excision of growth	April
4	M.	27	Sarcoma of upper jaw	Albert	10 days	Excision of jaw	January
5	M.	28	Inguinal hernia	Albert	10 days	Radical cure	January
6	M.	45	Stricture	Henry	4 days	?	January
7	M.	51	Varicose veins	Albert	19 days	Excision of veins	February
8	F.	4	Sinus of axilla	Alexandra	3 days	Excision of gland	July
9	F.	8	Sinus of neck and axilla	Beatrice	12 days	Excision of tuberculous glands	May
10	F.	15	Caries of femur; sinus	Alexandra	2 days	?	January
11	F.	5	Tuberculous hip	Victoria	18 days	Excision of hip	October
12	F.	13	Tuberculous knee	Elizabeth	41 days	?	March
13	M.	2	Abscess of neck	Anne	10 days	Incision of abscess	August
14	M.	42	Chronic abscess of neck	Clayton	14 days	Incision of abscess	January
15	M.	66	Ulcer of leg	Leopold	31 days	Ulcer	July
16	F.	48	Cellulitis of hand	Anne	40 days	Incision	August
17	F.	18	Cleft palate	Elizabeth	14 days	Suture of cleft	March
18	F.	$\frac{6}{12}$	Scald of legs	Victoria	45 days	Burn	December

arising in Hospital).

Part where eruption appeared.	Interval between action of probable cause and appearance of eruption.	Duration of attack.	Result.	Remarks.
Arm	10 days	3 days	D.	Erysipelas spread to shoulder and forearm. Rapid failure of strength.
Nose	14 days	2 days	N.	Spread over face. Recovered completely from erysipelas.
Cheek	14 days	5 days	C.	
Wound	7 days	5 days	C.	Secondary hæmorrhage the day preceding erysipelas.
Wound	4 days	9 days	C.	Cellulo-cutaneous. Spread to axilla.
Face	—	2 days	D.	P.M.—Cystitis; suppurative nephritis; cirrhotic liver.
Nose	1 day	9 days	C.	Operation wound healed by first intention.
Wound	1 day	6 days	C.	Spread over shoulder and arm. Probably infected before admission.
Cheek	3 days	7 days	C.	No extension of erysipelas.
Sinus	—	6 days	C.	Spread over knee.
Thigh	11 days	7 days	C.	Appeared near wound.
Face	—	3 days	C.	Spread over cheek.
Wound	7 days	2 days	C.	Spread over neck and lower half of face.
Wound	6 days	12 days	C.	Spread over head and neck.
Ulcer	—	2 days	C.	Previous excision of sarcoma.
Wound	?	7 days	C.	Spread up forearm. Disappeared on 5th day, reappearing 3 days later.
Nose	7 days	9 days	C.	Spread to cheek.
Ankle	—	7 days	C.	Spread over foot. Erysipelas quite cured.

SPECIAL TABLE III.—PYÆMIA, &c.

CLASS 1.—Admitted with the Disease.

Otitis media suppurativa; lateral sinus pyæmia.—1. E. D—, female, æt. 6. Discharge from left ear for years. Two days before admission child feverish, with vomiting and severe pain in ear. Definite shivering attacks. Increase of symptoms. No cough. On examination, very offensive discharge from left ear. Superficial sore over mastoid; no œdema over process. Tenderness at extreme tip of mastoid. Glands enlarged in left side of neck, with firm, hard, tender cord along anterior border of sterno-mastoid muscle. Child somewhat irritable; does not answer questions readily. Pupils equal and active. No optic neuritis. Temperature 102°. Pulse rapid. Incision over jugular vein in neck; vein white and thrombosed to level of hyoid; vein ligatured below entrance of common facial vein not thrombosed here. Vein above partially excised; contained very offensive breaking-down clot to within $\frac{1}{8}$ inch of ligature. Curved incision behind ear; bone infiltrated with very offensive black material. Lateral sinus thrombosed, incised, and clot scraped out, as well as portion of vein in neck until boracic lotion could be syringed through. Mastoid cells and antrum cleared out. 2nd day, temperature fell to 98·6°, and rose in evening to 102·4°. Vomited during the night. Less pain. 3rd day, temperature rose to 105°, with shivering, then fell to 97°. Pulse 100. Retching; no actual vomiting. 4th day, temperature rose to 103·4°, with shivering. Slight cough, with bloody expectoration in the afternoon. Signs of pleurisy at left base posteriorly. Respiratory rate 60. On succeeding days temperature remained between 102° and 104°, with rise to 105·4° on 6th day. No more rigors. Pulse-rate increased to 140, and became feeble. Bloody expectoration continued. Increasing feebleness. Parents removed child on 7th day.

2. L. M—, female, æt. 8. One week before admission boil appeared behind left ear; pricked with needle; inflammation spread. Fever, with noisy delirium. Left eye became swollen the day of admission. On examination, red œdematous swelling behind the left ear, extending short way down the neck; fluctuation. Left eye much swollen and œdematous. Temperature 101·6°. Incisions; small quantity of pus evacuated. Diarrhœa. Restlessness, controlled by morphia. Temperature rose to 107°. 10 c.c. of antistreptococcus serum injected. Rapidly failed. Death within 24 hours. P.M.

3. *Caries of jaw.*—A. S—, male, æt. 40. Painter. Swelling of face, with offensive discharge from mouth for days. Admitted with red brawny swelling of right side of face; the greater number of the teeth were carious, and mouth

was very foul. Complained of pain in abdomen and chest, with difficulty of breathing. Septic rash on trunk and arms. Temperature 100° , afterwards rising to 104° , and oscillating between that and 101° . Mouth cleansed and washed out with free chlorine gargle. Incisions into face and neck 3rd day; no pus found; no lessening of fever. Restlessness. Increasing rapidity of respiration and failure of strength. Death on 5th day. P.M.—Second right molar tooth loose and lying in pocket of most offensive pus. Inflammatory swelling of glands of neck, with much surrounding induration. Jugular vein not thrombosed. Disseminated inflammation of pleura. Both lungs full from apex to base, with pyæmic infarcts, some just on the point of breaking down. Bronchial glands enlarged. Liver fatty. Cloudy swelling of kidneys. Spleen diffuent.

4. *Otitis media suppurativa; lateral sinus pyæmia; temporo-sphenoidal abscess.*—R. A—, male, æt. 22. Carman. Discharge from right ear for 6 months; 2 months later he was struck on the head, and discharge increased. Ten days before admission he had continual headache, with vomiting and increased quantity of discharge. No giddiness. Swelling appeared behind the ear. On examination, mastoid abscess. Temperature 101.6° , later rising to 104° . Abscess incised; pus offensive; sinus led into antrum, which was opened. Temperature fell to normal, but rose to 104° on the 2nd day, and was accompanied by a rigor. Vein tied in neck and divided; it was not thrombosed. Sinus exposed and thrombus removed; little hæmorrhage, arrested by gauze plug. Vein and sinus syringed through. 3rd day, temperature rose 103.8° , and then fell to 96.8° . Vomited; no rigor. 4th day, temperature rose to 105.2° ; no rigor or sickness; plug from sinus removed. There was no paresis or anæsthesia; knee-jerks equal. Pupils normal. The fever gradually declined, reaching normal on the 12th day, and then rose again, reaching 102° at intervals. 17th day, left optic disc presented a filled-in appearance, and its margin was hazy. Arteries diminished in size, with white lines along them. Veins dilated; no hæmorrhages. Right disc grey appearance, especially in temporal half; margins ill defined, similar appearance to vessels of left. 23rd day, temperature has been lower since the 17th day, varying between 97° and 101° ; pulse varying between 50 and 80. Peculiar pallor of face. Constipation. 24th day, vomited twice. 26th day, wound explored; hæmorrhage from sinus arrested by plugging; further portion of wall of mastoid cells removed. Stacke's operation was hindered by the hæmorrhage. Slight irregular fever continued. On the 33rd day pus escaped through the jugular vein in the neck, and it was syringed through 2 days later. 37th day, gauze plug came away; offensive discharge; irregular fever. Pulse slow. Temperature became subnormal on the 40th day, and continued so until the 45th, when it began to rise. Opening into vein closed. Patient was dull and heavy. No further ophthalmoscopic change. 53rd day, temperature has once reached 103° , and on several occasions 102° . Pulse varied between 66 and 90. Vomited. Mental condition has changed. He now showed signs of irritation. 54th day, when asked to read made many mistakes, reading the "Palms" of David. Increased irritability, rendering examination unsatisfactory; wept copiously later; could not read the Lord's Prayer. Doubtful paresis of right arm, but distinct of left side of face. Knee-jerks equal. Pupils and eye muscles normal. Trephining over temporo-sphenoidal lobe 1 inch above meatus; dura mater did not bulge, and appeared normal; it was not opened.

Fit in the evening, the right arm being first affected, then the face and right leg, and later the movements became general, with the exception of the left side of the face, which remained motionless. During the greater part of the time the head and eyes were turned to the left. Movements were last seen in the right arm; were clonic, with tonic contraction in the intervals. 55th day, limbs dropped limply when lifted?; more tone in muscles of left arm. Knee-jerks and pupils normal. Mental condition worse; irritability, and more emotional. Passed urine and faeces under him. Fit at 1 p.m. of similar character, with the exception that the right side of the body was more affected. Fit repeated at 3.30 p.m.; face not affected. Trephined, and cerebellum explored; nothing found; few drops of chloroform only required. Fits were frequently repeated. On 55th day he became comatose, and died on 56th day. Temperature rose on the three days before death from 99·6° to 104°. Pulse from 74 to 130. P.M.—No pus in jugular veins. Lungs intensely congested. Myocardium and liver pale and fatty. Spleen enlarged and somewhat soft. Superior longitudinal sinus was filled in its whole length with puriform clot, and small veins entering it were also partly thrombosed. Lateral sinuses in similar condition. Small commissural vein across the torcular was plugged by soft clot. Yellowish exudation covered convexity of hemispheres and cerebellum. Brain, after hardening, showed that veins passing from parietal lobes to superior sinus were firmly plugged by decolourised clot. Right superior petrosal sinus was not plugged, and was the source of the hæmorrhage at the operation. Small recent abscess cavity in left hemisphere immediately below the upper end of the Rolandic fissure.

SEPTICÆMIA—*admitted as such.*

Ulcer of lip.—C. M—, male, æt. 56. Labourer. No history of syphilis. One month before admission small sore appeared at the right angle of the mouth, which has gradually increased since then. No pain. Glands in submaxillary region became enlarged and tender. On examination, broad fissure at right angle of mouth, extending for $\frac{3}{4}$ inch into the substance of the cheek, margins sharp and somewhat indurated; base sloughy. Glands in submaxillary region enlarged and tender. Temp. 100·2°. Irregular fever after admission, temperature ranging between 99° and 103·4°. Anorexia. Failure of strength. Ulcer and glands excised on 7th day. Microscopically the ulcer was not epitheliomatous. Temperature rose to 103·4° after operation, and later to 105·4°; reduced by tepid sponging. Injections of antistreptococcus serum 10 c.c. daily; no effect produced. Subcutaneous hæmorrhages developed. Sloughing of margins of wound in cheek. Sero-purulent fluid escaped from wound in neck. Rapid failure of strength. Death on 8th day. No P.M.

CLASS 2.—*Acute Bone Cases.*

Acute necrosis of tibia.—F. T—, male, æt. 1½. Swelling of left leg and cough for 5 days. No trauma. Left leg swoollen and tender from middle of calf to above knee; fluctuation over inner surface of tibia. Rhonchi and râles in lungs. Temp. 103·6°. Incision released a small quantity of pus from beneath periosteum of tibia, which was stripped up for about 3 square inches. Death in few hours. P.M.—Patches of broncho-pneumonia, with collapse of lung in both lower lobes.

CLASS 3.—*Arising in Hospital.*

1. *Scalp wound.*—T. C—, male, æt. 64. Porter. Fall of 40 feet. Admitted with extensive scalp wound, which was cleaned and sutured. Wound suppurated. Temperature rose to 101.2° on 3rd day. Counter-opening made and drainage-tube inserted. Progress satisfactory until 16th day, when temperature rose to 101.8° , and redness and swelling appeared to right of manubrium sterni, which increased; incised on the 19th day; pus found beneath pectoralis major between 2nd and 3rd ribs; sternum bare and rough. No diminution of fever. Swelling of left wrist noted on 22nd day; incised; no pus found. Muttering delirium at night. Temperature ranged between 99° and 103° ; no rigors. Cough. Gradually increasing exhaustion and emaciation. Abscess cavity in chest rapidly enlarged, with profuse discharge of pus. Death on 29th day. P.M.—Scalp wound healed. Bone beneath rough, but not fractured. No intra-cranial mischief. Cavity behind manubrium sterni localised. Pleural sacs universally adherent. Lungs very emphysematous; both bases engorged and almost airless. Heart large and flabby. Liver fatty. Left wrist-joint full of thin pus.

2. *Tuberculous knee and shoulder.*—S. H—, female, æt. 53. Two years ago pain in knee followed by swelling, and later diminished movement of joint. Eight months before admission loss of power in right arm, with swelling of shoulder; abscess formed and burst. On examination, swelling of right knee, globular and pulpy, limitation of movement; tibia displaced backwards. Sinus on right shoulder leading towards joint; limitation of movement. Amputation of thigh in lower third on 11th day by flap method. Primary synovial tuberculous disease; early cartilaginous erosion. Sinus of shoulder scraped. Temperature rose on following day to 102.6° , and varied on following days between 98° and 103° . Profuse suppuration in both wounds. Rigors on 20th day with temperature of 105° . No evidence of osteomyelitis in femur, a probe passing into healthy medulla. No tenderness along femoral vein. Pulse rapid and also respirations 60. No evidence of disease was detected in the lungs. Vomiting. Fever reduced by tepid sponging, but temperature soon rose again, varying between 100° and 104° . Pulse became more rapid and feeble, and respiratory rate also increased. No tenderness or swelling ever detected in thigh. Gradually increasing exhaustion. Temperature rose to 106.4° before death on 39th day. P.M.—Miliary, with caseous tubercle at left apex, with congestion and œdema of rest of lung; right lower lobe in similar condition. Spleen enlarged and friable; thickened area in capsule. Subarachnoid œdema. Right femoral vein filled by firm thrombus; the right external and common iliac veins were filled with salmon-coloured pus. Recent thrombus projecting into vena cava from common iliac vein.

3. *Sarcoma of chest wall.*—J. R—, male, æt. 63. Left pleurisy 2 years ago. Six weeks before admission noticed swelling size of walnut over left lower ribs, which has rapidly increased; some pain. On examination, prominent swelling, situated between the left anterior and posterior axillary lines, extending from the 6th rib to the costal margin, fixed to deep structures, skin slightly adherent, infiltrates surrounding structures and is of firm consistence. Pot. Iod. given, slight decrease in size and somewhat softer and more defined. Discharged on 26th day. Readmitted 6 weeks later. The

tumour had increased; explored on 2nd day, incision passed through a layer of whitish semi-transparent material; beneath this was a large quantity of caseating material infiltrating the intercostal and abdominal muscles and surrounding carious ribs, the 10th being extensively destroyed; caseating material scraped away and drainage-tube inserted. Profuse discharge followed, which became very offensive. Treated by boracic baths without relief. Tumour increased. Slight fever, temperature never rising above $100\cdot6^{\circ}$. Increasing exhaustion. Death on 28th day. P.M.—Incision led into a cavity filled with stinking pus, which extended both inside and outside the ribs, although outside the pleura. Mass of nodulated new growth pushing in the peritoneum just below the spleen, and a prolongation similarly affects the pleura. Section of tumour in places white and firm, elsewhere caseating and friable; it forms the wall of the abscess cavity. Primary seat of tumour either ribs or retro-peritoneal tissue; no secondary growths; cloudy swelling of liver and kidneys; left pleural adhesions; anterior border of lung emphysematous, and the remainder saturated with fluid; in upper part of lower lobe is an area of pale colour in a state of semi-consolidation, and very friable, being the commencement of a large pyæmic infarct; emphysema and œdema of right lung; atheroma of aorta and heart valves.

4. *Epithelioma of floor of mouth.*—W. T. B—, male, æt. 47. Labourer. History of syphilis. Ulceration noticed inside lower lip for one month, which rapidly spread. Admitted with epithelioma of floor of mouth and lower lip, submaxillary glands enlarged. Excision of growth and glands on 3rd day; glands along great vessels infected and total removal impossible; slight rigor on day after operation with temperature at $101\cdot6^{\circ}$; from this date the temperature rose to 105° every day, sometimes accompanied by a rigor; mouth became foul with cellulitis of neck; treated by quinine, tepid sponging, and injection of antistreptococcus serum; increasing feebleness; death on 9th day. P.M.—No attempt at union in wound; extending from root of tongue down right side of larynx almost to root of neck was a track of cellulitis marked by blackened ragged tissues; lungs highly œdematous; calcareous tubercle at right apex; early aortic atheroma; liver fatty and curiously lobulated; spleen large and soft. Post-mortem porter developed cellulitis of hand after dealing with this case.

SEPTICÆMIA.

Reducible inguinal hernia.—A. W—, male, æt. 5. Admitted with congenital right inguinal hernia of two years' standing. Radical cure on 2nd day by Kocher's method modified, the excess of sac being ablated; stumps sutured with silk. Temperature rose after operation to 104° ; wound dressed, nothing detected; pulse rose to 144; tongue furred; general condition became rapidly worse; profuse suppuration in wound on 2nd day; stitches removed and wound widely opened; placed in boracic bath. 3rd day, eyes sunken, face greyish, rapid feeble pulse, patient apparently moribund; temp. $103\cdot4^{\circ}$. 5 c.c. of antistreptococcus serum injected on 4th day; temperature fell to $100\cdot2^{\circ}$; injection repeated in evening; slight improvement in condition. 5th day, some improvement; pulse stronger, eyes less sunken, takes food better; delirium; wound less unhealthy; serum injections continued; temperature fallen to 100° . 7th day,

marked improvement, temperature fallen to 99° ; serum injections discontinued; less discharge from wound. 8th day, septic rash on face. Slight fever for few days. Rapid convalescence with exception of appearance of perforating ulcer of cornea. Discharged cured on 52nd day.

Tuberculous glands of neck.—F. A—, male, æt. 4. Family history of phthisis. Gland in submaxillary region noted for $2\frac{1}{2}$ years; rapid increase with pain of late; discharge from left ear. Glands excised on 9th day; broken down; wound sutured; temperature rose to 104° after operation; vomiting; blood-stained serum soaked through the dressings on the 10th day; discharge from ear very offensive; temperature gradually fell, reaching 99° on 12th day. Slight secondary hæmorrhage on 14th day on two occasions, controlled by pressure. Hæmorrhage recurred on 15th day; wound opened up; internal jugular vein covered by unhealthy granulations; hæmorrhage had occurred through several small openings in the wall; vein tied close to base of skull and also at inferior extremity of wound; wound discharging fair quantity of pus; temperature averaging 101° . 24th day, wound unhealthy, few granulations but much discharge; gradual rise of temperature to 104° ; discharge from ear smaller in quantity and less offensive; nothing detected with ophthalmoscope. 27th day, temperature rose to 106° . 31st day, wound dry and unhealthy, little discharge; fever continues, reduced by tepid sponging; injections of anti-streptococcus serum, 4 c.c. given daily. 34th day, wound beginning to granulate; discharge from ear less; serum produced no effect upon fever. 44th day, child weaker; temperature more of a pyæmic character, often rising to 106° , and on 42nd day to 106.4° ; wound almost healed; serum discontinued; diarrhœa; increasing failure of strength until 45th day, when rapidly failed; increased respiratory rate. Death on 46th day. No P.M.

SPECIAL TABLE IV.—*Fractures and Dislocations treated*

BONE.	Total.	Sex.		Age.										Not stated.
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60			
DISLOCATIONS.														
<i>Inferior maxilla—</i>														
Bilateral	3	1	2	...	...	.	...	2	...	...	1	...		
<i>Clavicle—</i>														
Acromial end . . .	2	2	...	...	...	...	1	...	1	...	...	...
Sternal end . . .	4	2	2	...	...	1	...	...	1	1	1	...		
<i>Humerus—</i>														
Subcoracoid . . .	53	33	20	...	...	...	5	10	13	10	13	2		
Subglenoid . . .	5	4	1	...	...	...	1	...	1	...	3	...		
Not stated . . .	2	2	...	...	...	...	...	1	1	...	...	...
<i>Radius and ulna . . .</i>	21	16	5	2	5	9	1	...	3	1	...	...
<i>Radius</i>	9	6	3	2	3	2	2	...	...	...	...	...
<i>Ulna</i>	7	5	2	1	2	3	1	...	...	...	...	...
<i>Metacarpus</i>	5	5	..	...	...	...	...	3	1	1	...	...
<i>Digits of hand—</i>														
Proximal phalanx . .	7	5	2	...	1	1	3	1	1	...	...	...
Middle phalanx . . .	1	...	1	...	...	...	...	1	...	...	...	...
Distal phalanx . . .	2	2	...	...	...	...	...	...	...	1	1	...		
FRACTURES.														
<i>Nasal bones</i>	11	7	4	...	...	...	4	4	2	...	1	...		
<i>Inferior maxilla . . .</i>	7	7	...	...	...	...	4	2	1	...	...	...
<i>Scapula</i>	1	1	...	1	...	...	...	...	...	...	...	...
<i>Sternum</i>	2	1	1	...	...	...	...	1	..	1	...	...
<i>Clavicle</i>	97	62	35	30	27	18	4	7	4	3	4	...		
<i>Humerus—</i>														
Shaft	48	28	20	8	6	4	1	5	5	6	11	2		
Lower extremity . .	25	19	6	3	14	5	...	1	2	...	...	...
Separation of epiphysis	12	5	7	7	4	1	...	...	...	...	...	...

in Casualty Department, not admitted to Wards.

Side of body.			Remarks.
R.	L.	Not stated.	
...	
2	...	...	Direct violence 1.
1	2	1	Indirect violence 4.
26	27	...	Direct violence 8; indirect violence 12. Subclavicular 1. Anæsthetic 7. 3rd time 1, 4th time 2, 5th time 1.
3	2	...	Direct violence 3; indirect violence 2.
2	...	...	Direct violence 2. 3rd time 1.
9	12	...	Direct violence 8; indirect violence 4. Backwards 8; laterally 4. Fractured internal condyle 3; paralysis of arm 1.
3	6	...	Indirect violence 3. Backwards 3; forwards 1. Fractured internal condyle 1; olecranon 1; of radius and ulna 1.
4	3	...	Backwards 5. Direct violence 1; indirect 2. Fractured internal condyle 1.
1	4	...	Thumb 3, 4th and 5th 1, 5th 1. Indirect violence 3.
4	3	...	Direct violence 3; indirect 2. Thumb 4; ring finger 2; little finger 1. Laterally 1.
...	1	...	3rd and 4th 1.
1	1	...	Thumb 2.
...	
...	4	3	Between molars 1; angle 2; neck 1; angle and symphysis 1. Direct violence 5.
1	...	...	Direct violence 1.
...	...	...	Direct violence 2.
46	51	...	Outer third 30; middle third 9; inner third 2; acromial end 5; intra-ligamentous 3; sternal end 1. Comminuted 1. Direct violence 18.
21	27	...	Upper third 10; middle third 7; lower third 12. Surgical neck 14. Greenstick 1. Direct violence 11; indirect violence 15.
14	11	...	External condyle 4; internal condyle 11. T-shaped 6. Direct violence 8; indirect violence 4.
...	12	...	Lower 12.

SPECIAL TABLE IV.—*Fractures and Dislocations treated in*

BONE.	Total.	Sex.		Age.									Not stated.
		M.	F.	-5	-10	-20	-30	-40	-50	-60	+60		
FRACTURES—continued.													
<i>Radius and ulna</i> . . .	75	58	17	12	24	29	...	4	2	2	...	2	
<i>Radius</i>	55	38	17	16	7	7	2	11	5	3	4	...	
Colles's	70	23	47	...	3	8	2	5	13	19	16	4	
Separation of epiphysis	4	3	1	1	...	3	...	...	...	...	...	...
<i>Ulna—</i>													
Shaft	16	11	5	4	1	2	3	1	1	2	...	1	
Olecranon	9	7	2	...	...	2	2	3	...	...	1	1	
<i>Metacarpus</i>	33	29	4	2	1	4	10	4	6	6	...	...
<i>Phalanges</i>	36	28	8	1	2	4	10	11	4	3	...	1	
<i>Patella</i>	1	1	...	...	...	...	1	...	...	...	...	...
<i>Tibia—</i>													
Shaft	44	33	11	8	18	7	1	4	3	...	3	...	
<i>Tibia and fibula</i> . . .	2	2	...	1	...	...	...	1	...	...	...	...
<i>Fibula</i>	42	30	12	3	1	3	6	13	8	3	2	3	
<i>Metatarsals</i>	7	6	1	...	...	1	...	3	...	3	...	...
<i>Phalanges</i>	16	16	...	...	1	1	7	4	2	1	...	...

Casualty Department, not admitted to Wards—continued.

Side of body.			Remarks.
R.	L.	Not stated.	
30	45	...	Upper third 3; middle third 15; lower third 11. Indirect violence 14; direct violence 30. Greenstick 20. Fracture 2 months previously 1.
24	31	...	Upper third 13; middle third 8; lower third 19. Direct violence 15; indirect violence 15. Greenstick 13.
26	44	...	Direct violence 17; indirect 37. Double 2. Fractured clavicle 1.
1	3	...	Direct violence 1; indirect 2. Upper 1; lower 3.
6	10	...	Upper third 1; middle third 4; lower third 6. Direct violence 7; indirect 5. Greenstick 1.
4	5	...	
21	12	...	Thumb 5; index 7; middle 8; ring 9; little 7. Compound 2.
20	16	...	Thumb 6; index 8; middle 8; ring 5; little 11. Proximal phalanx 16; middle 5; distal 15. Compound 13. Amputation 4.
1	...	...
23	20	1	Upper third 4; middle third 7; lower third 17. Internal malleolus 4. Greenstick 4.
1	1	...	Lower third 1.
14	27	1	Upper third 2; middle third 2; lower third 28. Compound 1.
4	3	...	1st metatarsal 2; 2nd 3; 3rd 2; 4th 1; 5th 1.
7	9	...	Proximal phalanx 10; middle 2; distal 6. Great toe 16.

REPORT
OF THE
IN-PATIENT DEPARTMENT FOR DISEASES
OF WOMEN
FOR THE YEAR 1898.

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THE report for the year 1898 has been arranged in two parts as in preceding years. The first part consists of four tables, giving—

(1) The number of patients admitted during the year, and the results of treatment.

(2) A general classification of the diseases for which patients were admitted.

(3) The number of operations performed during the year, and the results obtained.

(4) The causes of death in cases ending fatally.

The second part consists of four special tables, followed by abstracts of cases of interest. The special tables refer to—

(1) Abdominal sections for diseases of ovaries and broad ligament cysts.

(2) Abdominal section for diseases of Fallopian tubes.

(3) Abdominal hysterectomies.

(4) Abdominal sections other than those included in the preceding tables.

Three slight alterations have been made: (a) the table of operations has been enlarged, and the short general statement, previously made in paragraph form after the table, included in the operation table itself; (b) the table of fatal cases has been slightly enlarged; (c) a special table has been added for cases of abdominal hysterectomy.

TABLE I.

General Statement of Patients in Adelaide Ward.¹

Number of Beds in Ward (including small Ward)	...	...	...	29		
Number of Patients in Ward, Jan. 1st, 1898	...	...	...	17		
” ” ” Dec. 31st, 1898...	...	...	...	24		
” ” discharged or who died in 1898 :				Rate per cent.		
Cured	...	...	...	207	...	65·09
Relieved	...	...	...	58	...	18·24
Unrelieved or for other causes	...	...	...	45	...	14·16
Died	...	...	...	8	...	2·51
Total	...	...	...	318	...	100·00

Average number of days of each patient's stay in hospital—22·57.

¹ In September, 1898, the new Adelaide Ward in Block II was opened with 29 beds, instead of 21 as in the old ward.

TABLE II.—General

Disease.	Number of cases.	Age.						Duration of residence.					Result.			
		10-20	30	40	50	60	Above 60	Under 1 wk.	1-2 weeks	2-4 weeks	1-2 months	Above 2 mos.	Cured.	Relieved.	Unrelieved.	Died.
I. DISEASES OF OVARY.																
A. <i>a.</i> Sarcoma	1	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...
<i>b.</i> Sarcomatous cyst	2	...	...	...	2	...	...	...	...	1	1	...	2	...	...	...
B. <i>Cysts:</i>																
<i>a.</i> Simple and multiple	25	3	6	3	5	5	3	3	1	7	14	...	20	1	3	1
<i>b.</i> Papillomatous	1	...	...	...	1	...	...	...	...	1	...	...	1	...	...	...
<i>c.</i> Suppurating	2	...	...	2	...	...	...	...	...	...	2	...	2	...	...	...
<i>d.</i> Dermoid	5	2	2	1	...	...	...	...	...	...	5	...	5	...	...	...
C. Focus of suppuration in ovary	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1
II. DISEASES OF FALLOPIAN TUBE.																
A. Salpingitis	35	3	20	10	2	...	...	3	3	10	19	...	14	18	3	...
B. Pyosalpinx	7	...	2	4	1	...	...	2	...	...	5	...	5	...	...	...
C. Tubo-ovarian abscess	1	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...
D. Hydrosalpinx	2	...	1	...	...	1	...	...	...	...	2	...	2	...	...	...
F. Tubercular salpingitis	2	...	1	1	...	...	...	...	...	...	1	1	1	1	...	...
F. Myoma of Fallopian tube	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...

Table of Diseases.

Remarks.

Ascites. Transferred to Surgical side with symptoms of intestinal obstruction.

Ascites present in both cases. Also in both cases one ovary was cystic and showed sarcomatous change, while the other ovary showed early sarcoma.

21 cases were operated upon, of which 20 were cured. The fatal case was one with a twisted pedicle and early necrotic change in the cyst wall; death was due to shock and hæmorrhage from separation of extensive adhesions. In 2 of these cases the cyst is described as inflamed; in 5 the pedicle was found twisted, and in 2 of these latter necrotic changes were present in the cyst; in 1 the cyst was found ruptured. Of the 4 cases not operated upon, 2 were small cystic ovaries, in which operation was not advised; 1 patient declined operation; while the remaining case was one which had been transferred from the Medical side for diagnosis, and was therefore transferred to the Surgical side for operation. In 1 case ventro-fixation of the uterus for prolapse was also done.

Abdominal section. Soft papillomatous growth in interior of cyst.

Both cases were treated by abdominal section. Drainage-tube for 6 days. In 1 case antistreptococcic serum, 10 c.c., was injected twice.

All were treated by abdominal section. In 3 of these cases the cyst was inflamed; in 1 of these it was also ruptured.

The patient had a sinus in the abdominal wall leading down to a small focus of suppuration in the ovary. The appendages of that side were removed by abdominal section, and the sinus dissected out of the abdominal wall. Patient died 4 days after operation. P.M.—General peritonitis; peritoneal cavity full of blood, apparently from separated adhesions.

14 out of the 35 cases were treated by abdominal section and all recovered. Of the other cases, one, in which an intra-peritoneal abscess existed, was treated by vaginal incision, and another, in which there was a pelvic abscess, was treated by incision above Poupart's ligament. The remaining cases were treated by rest in bed and tonics. Of the cases operated upon, cystic ovaries were present in 8 cases, small suppurating ovarian cysts in 2 cases, and hydrosalpinx in 1.

6 cases were treated by abdominal section, of which 5 recovered. The fatal case was admitted with intra-peritoneal abscess and peritonitis from rupture of a pyosalpinx. The other fatal case, also one of general peritonitis from rupture of a pyosalpinx, was not operated on. P.M.—Five pints of pus were found in the peritoneal cavity.

Suppurating right Fallopian tube communicating with a suppurating ovarian cyst by a communication large enough to admit the tip of the little finger. Patient had been in hospital for left pelvic hæmatocele, which had cleared up considerably at time of operation.

Both cases were treated by abdominal section.

Abdominal section in both cases. In 1 case there was also miliary tuberculosis of the peritoneum.

Myoma of right Fallopian tube, with lumen of the tube passing through the centre of the tumour.

TABLE II--

Disease.	Number of cases.	Age.					Duration of residence.					Result.				
		10-20	30	40	50	60	Above 60	Under 1 wk.	1-2 weeks	2-4 weeks	1-2 months	Above 2 mos.	Cured.	Relieved.	Unrelieved.	Died.
III. DISEASES OF THE PELVIC PERITONEUM, CELLULAR TISSUE, &c.																
A. Pelvic peritonitis	7	...	4	2	1	...	...	2	1	3	1	...	1	4	2	...
B. Pelvic cellulitis	11	1	2	6	2	...	...	1	1	7	1	1	8	3	...	...
C. Broad ligament cyst	5	...	2	3	...	...	...	1	...	3	1	4	...	1	...	...
D. Tumour of broad ligament	1	...	1	...	...	...	...	1	...	...	...	...	...	1	...	...
IV. DISEASES OF UTERUS AND CERVIX.																
A. Endometritis	38	1	18	14	4	1	...	2	24	10	2	...	34	3	1	...
B. Erosion of cervix	2	...	1	...	...	1	...	2	...	...	...	1	1	...	...	...
C. Laceration of cervix	3	...	1	1	...	1	...	1	1	1	...	...	1	1	1	...
D. Syphilitic ulceration of cervix	1	...	...	1	...	...	...	1	...	...	...	...	1	...	...	...
E. Tumour of cervix	1	...	...	...	...	1	...	1	...	...	...	...	...	1	...	...
F. Fibro-myoma	24	...	4	8	6	5	1	5	3	4	12	...	11	4	7	2
G. Polyp, fibroid	8	...	1	...	7	...	...	4	4	...	...	...	8	...	...	...
H. Polyp, mucous	4	...	...	...	1	3	...	2	1	1	...	...	4	...	...	...
I. Carcinoma of cervix	16	...	...	2	5	8	1	4	2	...	10	...	8	1	7	...
J. Carcinoma of body of uterus	4	...	...	...	...	3	1	1	1	1	1	...	2	...	2	...

continued.

Remarks.

2 patients refused examination and treatment. 1 case ? appendix or uterine appendages. 1 case of encysted perimetritis; abdominal section, removal of fluid, and separation of adhesions.

7 cases were puerperal in origin; 2 followed operation, one for suppurating ovarian cyst, one for hæmatocele; in 2 the cause was not discovered. Abdominal section was performed in one case in which there was an intra-peritoneal abscess. Incision and drainage was the treatment in 4 cases. The pus pointed above Poupart's ligament in 1 case, in the thigh in 1 case, in the iliac fossa in 1 case, and in 1 case the incision was made in the posterior vaginal fornix. The remaining cases cleared up without the formation of pus.

4 cases treated by abdominal section. In 2 cases the cyst was inflamed, and accompanied by pelvic peritonitis. The other case was transferred to the Surgical side, as the extreme mobility of the cyst made its pelvic origin very doubtful.

Discharged at own request.

In 35 cases the hæmorrhage was caused by adenoid growths of the endometrium. Dilatation of the cervix, followed by exploration and curetting of the uterine cavity, was adopted in 37 cases. 6 cases were recurrent.

1 was treated with Churchill's iodine, 1 by curetting.

1 treated by repair of cervix and curettage, 1 by curettage; in 1 no operation was thought necessary.

Ulceration almost entirely cleared up under mercury. Had iritis and secondary syphilitic rash.

Solid tumours of cervix, probably sarcomatous.

In 9 of the cases abdominal hysterectomy was performed, with 1 death; myomectomy was done in 1 case, and vaginal hysterectomy in a case of rapidly recurring submucous fibro-myomata. In 1 a submucous fibroid was removed by enucleation after dilatation of the cervix. In 1 case panhysterectomy by the combined abdominal and vaginal method was performed for a large sloughing submucous fibroid; the patient, a feeble old woman, died 14 days later of peritonitis. In 1 case, in which old pelvic peritonitis had caused extensive adhesions, abdominal section was performed and the adhesions separated. The remaining cases were treated by rest, operation not being advised.

In all cases the polyp was removed by cutting across the pedicle with scissors.

In 3 cases the polyp was removed by torsion; in 1 case it was spontaneously expelled. In 1 case it was also accompanied by urethral caruncle, which was excised and cauterised. 8 cases were treated by vaginal hysterectomy, 1 by supra-vaginal amputation. An exploratory abdominal section was done in 1 case, and an attempt made to remove the ovaries, but abandoned owing to extensive disease. In the remaining 6 cases the disease was too far advanced for surgical interference.

In 2 cases vaginal hysterectomy was performed; the other 2 cases were unfit for operative treatment.

TABLE II—

Disease.	Number of cases.	Age.					Duration of residence.				Result.					
		10-20	30	40	50	60	Above 60	Under 1 wk.	1-2 weeks	2-4 weeks	1-2 months	Above 2 mos.	Cured.	Relieved.	Unrelieved.	Died.
IV. DISEASES OF UTERUS AND CERVIX— <i>continued.</i>																
K. Retroversion	4	...	1	...	2	1	...	2	2	...	...	...	1	2	1	...
L. Retroflexion	1	...	...	1	...	...	...	...	...	...	1	...	1	...	...	...
M. Hypertrophy of cervix	1	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...
N. Procidentia uteri	4	...	1	3	...	...	...	1	...	2	1	3	1	...	...	...
O. Metrorrhagia	3	...	1	1	...	1	...	2	1	...	...	...	1	...	2	...
V. DISEASES OF THE VAGINA, VULVA, &C.																
A. Papilloma of vulva	1	...	...	...	...	...	1	...	1	...	...	...	1	...	...	...
B. Fibro-myoma of anterior vaginal wall	1	...	...	...	1	...	...	1	...	...	...	...	1	...	...	...
C. Vaginitis	1	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...
D. Vaginal stenosis	1	...	...	1	...	...	...	...	...	1	...	...	1	...	...	...
E. Prolapse of vaginal walls	6	...	1	2	3	...	...	2	...	2	2	...	4	1	1	...
F. Urethral caruncle	9	...	2	1	...	3	3	...	2	7	...	...	8	...	1	...
G. Vesico-vaginal fistula	1	...	...	1	...	...	...	...	...	...	1	...	1	...	...	...
H. Vesico-uterine fistula	1	...	...	1	...	...	...	...	...	...	1	...	1	...	...	...
I. Ruptured perinæum	8	...	3	3	...	2	...	...	...	2	6	...	8	...	...	...
VI. PREGNANCY AND ITS ACCIDENTS.																
A. Pregnancy	1	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...
B. Pregnancy with acute nephritis	1	...	...	1	...	...	...	1	...	...	...	...	...	...	...	1
C. Pregnancy with albuminuria	1	...	1	...	...	...	...	...	...	...	1	...	...	1	...	...
D. Hæmorrhage during pregnancy	2	...	...	2	...	...	...	1	...	1	...	...	2	...	...	...
E. Hydatidiform mole	1	...	1	...	...	...	...	...	...	1	...	...	1	...	...	...
F. Retained products of conception	15	...	8	6	1	...	...	4	9	2	...	14	...	...	...	1

continued.

Remarks.

Hodge pessary in 2 cases, Zwanke pessary in 1.

Abdominal section, adhesions separated, and ventro-fixation of uterus done.

Supra-vaginal amputation of cervix; vaginal fixation of uterus.

Ventro-fixation in 2 cases; in 1 of these amputation of the cervix was also done; 1 case was treated by amputation of cervix and colporrhaphy; in 1 case a ring pessary was used.

1 patient was curetted, 1 had no hæmorrhage while in hospital, and 1 refused treatment.

Excision.

Dissected out.

Menorrhœa.

Elastic operation.

8 cases were treated by anterior colporrhaphy and colpo-perinæorrhaphy; in 1 case a ring pessary was used; 1 patient declined treatment.

In 8 cases the growth was removed with scissors, and the cautery applied to the base; 1 patient declined operation. The growth was recurrent in 1 case.

Elastic operation.

Elastic operation.

Perinæorrhaphy in all cases; in 1 colporrhaphy was also done.

Came in for abdominal enlargement.

Uræmia; induction of labour. Death 4 days later from uræmia.

Intra-uterine death of fœtus, spontaneous abortion. Discharged with a trace of albumen.

Spontaneous abortion in 1.

Induction.

All the cases, with one exception, were treated by dilatation and exploration of the uterine cavity. Placental polyp was noted in 3 cases, blighted ovum in 1. The fatal case had offensive and decomposing placenta, developed septicæmia, and died in 14 days; blood culture gave negative result. Antistreptococcic serum used.

TABLE II.—

Disease.	Number of cases.	Age.					Duration of residence.					Result.				
		10-20	20-30	30-40	40-50	50-60	Above 60	Under 1 wk.	1-2 weeks	2-4 weeks	1-2 months	Above 2 mos.	Cured.	Relieved.	Unrelieved.	Died.
VI. PREGNANCY AND ITS ACCIDENTS— <i>continued.</i>																
G. Vaginal retention of products of conception	1	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...
H. Decidual endometritis	5	...	...	5	...	...	...	...	2	3	...	...	5	...	...	...
I. Tubal pregnancy	8	...	3	4	1	...	...	...	...	4	3	1	6	2	...	...
VII. VARIOUS.																
A. Dysmenorrhœa	11	3	6	2	...	...	...	2	2	3	4	...	5	5	1	...
B. Amenorrhœa	1	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...
C. Menorrhagia	3	...	...	3	...	...	...	2	1	...	...	...	1	1	1	...
D. Fæcal accumulation	2	...	...	2	...	...	...	...	2	...	...	...	2	...	...	...
E. Malignant disease of abdomen or pelvis	5	...	...	2	1	...	2	4	1	...	...	...	...	...	5	...
F. Tuberculous disease of peritoneum .	1	1	...	...	...	...	...	...	...	1	...	...	1	...	...	...
G. Abdominal sinus	1	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...
H. Vaginismus	1	...	1	...	...	...	...	1	...	...	...	...	1	...	...	...
I. Abdominal enlargement	1	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...
J. Pelvic neuralgia	2	...	2	...	...	...	...	1	1	...	...	...	2	...	...	...
K. Tuberculous bladder	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...
L. Tubercular pelvic glands	1	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...
M. Retention of urine	1	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...

continued.

Remarks.

Patient had an incomplete abortion 7 days before admission. On examination the vagina was filled with a decomposing ovum, which could not escape owing to the small aperture of the hymen. The uterus was empty.

All treated by dilatation and curetting.

6 cases were treated by abdominal section; in the other 2—cases of tubal abortion with hæmatocele—the hæmatocele shrunk under observation, so operative treatment was not advised. In 2 cases there was rupture of the tube; 5 were cases of tubal abortion or tubal mole; 4 were accompanied by hæmatocele. One case of left hæmatocele not operated on came in a few weeks later for right pyosalpinx, and was operated on.

In 10 cases the cervical canal was dilated with graduated bougies, and in 9 of these this was followed by the introduction of a glass stem pessary. 1 patient discharged at own request.

Stenosis of os externum and cervical canal. Treated by dilatation and stem pessary.

Dilatation and curetting in 1 case without result.

Enemata, aperients.

2 transferred to Surgical side.

Exploratory abdominal section; pseudo-pelvic tumour due to matting of intestine.

Vaginal dilatation. Information received that this patient was delivered of a female child in January, 1899. As she was discharged from the hospital in April, 1898, she must have become pregnant immediately on leaving the hospital. She had been married $2\frac{1}{2}$ years before her admission.

Fat.

1 case admitted 6 months later and operated on for pyosalpinx.

To Surgical side.

Functional.

TABLE III.—*Operations*

Nature of operation.	Number of cases.	Cured.	Relieved.	Unrelieved.	Died.
Abdominal sections.—Total number . . .	87	76	5	1	5
Cystic adenoma of ovary	21	20	...	...	1
Papillomatous cyst of ovary	1	...	1	...	...
Broad ligament cyst	4	4	...	...	...
Suppurating cyst of ovary	2	2	...	...	...
Dermoid cyst of ovary	5	5	...	...	...
Sarcomatous cyst of ovary	2	2	...	...	...
Suppurating focus in ovary	1	...	...	...	1
Salpingitis	15	15	...	...	...
Tubercular salpingitis	2	1	1	...	...
Pyosalpinx	6	5	...	...	1
Hydrosalpinx	2	2	...	...	...
Myoma of Fallopian tube	1	1	...	...	...
Tubal gestation	6	6	...	...	...
Hysterectomy for uterine fibroids	9	8	...	...	1
Myomectomy for uterine fibroid	1	1	...	...	...
Panhysterectomy for sloughing sub- mucous fibroid	1	...	...	...	1
Ventre-fixation	3	3	...	...	...

performed during the year.

Remarks.

This is an increase of 8 on the numbers of last year.

In the fatal case death occurred 12 hours after operation from shock. The cyst had a twisted pedicle, and showed early necrotic change; it was very adherent to the abdominal wall; bleeding took place from the area of separated adhesions. The abdomen was reopened about 6 hours after operation, when the pedicle was found secure, though there had been a good deal of oozing into the pelvis. P.M.—No signs of hæmorrhage; no peritonitis; stump of ovary normal.

Soft papillomatous growth in interior of cyst; none outside. Readmitted 9 months later with recurrence in pedicle and abdominal wall.

Both drained; in 1 case antistreptococcic serum was injected before operation as a precautionary measure

In one case the cyst had ruptured.

See "Special Abstracts."

Sinus in abdominal wall leading to a purulent focus in ovary. Ovary and tube removed, and sinus dissected out of abdominal wall. Death 4 days later. P.M.—General peritonitis; large quantity of blood in abdomen and pelvis; source apparently separated adhesions, as ligatures were in place on pedicle, though one was loose.

The fatal case was admitted with signs of acute peritonitis. At the operation an intraperitoneal abscess was opened and drained; peritoneum injected; left tube, which contained pus, and which had evidently discharged into the abscess in Douglas's pouch, was removed; drainage-tube put in. Patient died about 24 hours after operation. P.M.—Very little inflammatory lymph on the surface of the intestines; considerable quantity of pus in the pelvis, especially behind the uterus and appendages; also pus below the coils of intestine on the left side reaching upwards as far as the diaphragm; right appendages normal.

See "Special Abstracts."

Affected tube and products of gestation removed in each case.

Fatal case due to peritonitis on the 5th day. The tumour was growing into the left broad ligament, and great difficulty was experienced in freeing it.

The uterus was too large to remove by the vagina, so a combined vaginal and abdominal operation was done. See "Special Abstracts."

2 cases were operated on for prolapse; 1 for retroflexion; in 1 case amputation of cervix was also performed.

Nature of operation.	Number of cases.	Cured.	Relieved.	Unrelieved.	Died.
Exploratory abdominal sections for—					
Tuberculous peritonitis with pseudo-pelvic tumour	1	...	1	...	...
Pelvic peritonitis	2	...	2	...	...
Intra-peritoneal abscess	1	1	...	...	...
Malignant disease	1	...	...	1	...
Vaginal hysterectomy for—					
Carcinoma of uterine body	2	2	...	...	...
Carcinoma of cervix uteri	8	7	1	...	...
Recurrent submucous fibroids	1	1	...	...	...
Supra-vaginal amputation of cervix for—					
Carcinoma of cervix	1	1	...	...	...
Prolapse of uterus	1	1	...	...	...
Hypertrophy of cervix	1	1	...	...	...
Repair of cervix	1	1	...	...	...
Enucleation of submucous fibroid	1	1	...	...	...
Fibroid polyp	8	8	...	...	...
Mucous polyp	4	4	...	...	...
Repair of ruptured perinæum	8	8	...	...	...
Colporrhaphy	4	4	...	...	...
For vesico-vaginal fistula	1	1	...	...	...
For vesico-uterine fistula	1	1	...	...	...
Plastic operation for malformed vagina	1	...	1	...	...
Fibro-myoma of anterior vaginal wall	1	1	...	...	...
Papilloma of labium	1	1	...	...	...
Incision for pelvic abscess	4	4	...	...	...
Curetting of uterine cavity	43	39	4	...	...
Dilatation and exploration of uterine cavity for retained products of conception	14	13	...	...	1
Induction of labour	2	1	...	...	1
Urethral caruncle	9	9	...	...	...
Total	204	185	11	1	7

Remarks.

iliary tubercles in peritoneum.

paration of adhesions in both cases; removal of fluid in 1.

apparently due to cellulitis of left broad ligament; later incision over mass in left iliac fossa; no pus; later pus evacuated in left groin.

tempt made to remove ovaries, but abandoned owing to extensive involvement.

ee "Special Abstracts," No. 4.

colporrhaphy was also done.

aginal fixation of uterus was also done.

edicle cut through with scissors; hæmorrhage in 1 case necessitating sutures.

ersion of pedicle.

n 1 case colporrhaphy also done.

bove Poupart's ligament in 1 case, iliac fossa in 1 case, in thigh in 1 case, in posterior vaginal fornix in 1 case; all due to pelvic cellulitis.

previous dilatation of cervical canal; 37 cases for adenomata of endometrium, 5 for decidual endometritis, 1 for metrorrhagia.

Placental polyp in 3 cases; blighted ovum in 1. Fatal case had offensive and decomposing placenta; septicæmia followed on evacuation of uterus. Death in 14 days. Antistreptococcic serum used.

for uræmia. Death in 4 days from uræmia; 1 for hydatidiform mole.

Excision of growth and cauterisation of base in all cases.

TABLE IV.—*Causes*

No.	Initials and date of admission.	Age.	Disease.	Operation.	Duration of residence.	Number of days after
					Days.	
1	E. W., Jan. 19	31	Retention of portions of decomposing placenta	Evacuation of uterine contents	14	13
2	E. H., June 18	34	Pregnancy with acute nephritis; uræmia	Induction of labour	5	4
3	E. P., Oct. 15	52	Ovarian cyst	Ovariectomy	7	12 hours
4	E. S., Oct. 28	36	Ruptured pyosalpinx; intra-peritoneal abscess; peritonitis	Laparotomy; removal of left appendages; drainage	3	—
5	E. F., Oct. 8	67	Sloughing; fibro- myoma of uterus	Panhysterectomy; combined vaginal and abdominal operation	26	14
6	M. S., Oct. 29	49	General peritonitis from ruptured pyo- salpinx	—	3	—
7	L. S., Nov. 7	27	Suppuration in ovary; sinus in abdominal wall	Laparotomy; removal of right appendages	15	5
8	A. B., Dec. 5	51	Fibro-myomata of uterus	Abdominal hysterectomy	8	5

Death in fatal cases.

Cause of Death and Remarks.

Septicæmia; rigor on evening of operation; afterwards irregular rises of temperature, up to 106°; antistreptococcic serum used from 5th day onwards.

ræmia; comatose 2 days.

Shock and hæmorrhage; abdomen reopened 6 hours after operation; considerable quantity of blood in pelvis, evidently from area of separated adhesions, as pedicle quite secure.

Peritonitis. P.M.—There was a considerable quantity of pus in the pelvis, especially behind the uterus and appendages. There was pus also between the coils of intestines on the left side reaching upwards as far as the diaphragm. The posterior surface of the uterus was coated with inflammatory lymph.

M.—Peritonitis; small localised collections of pus between matted intestines in pelvis; no general peritonitis; granular kidneys. See "Special Abstracts," No. 5.

M.—General peritonitis; 5 pints of pus in abdomen, apparently from right Fallopian tube; chronic nephritis; fatty heart.

M.—General peritonitis; hæmorrhage; considerable quantity of blood free in pelvis and abdomen; ulcerative endocarditis on mitral valve.

General peritonitis. P.M.—General plastic peritonitis most marked in the lower part of the abdomen, but present everywhere; drop of pus at one spot in the line of suture of uterine stump.

SPECIAL TABLE I.—*Abdominal Section*

No.	Initials.	Residence.	Age.	Civil condition.	Date of operation.	Nature, &c., of tumour.	Adhesions.
1	F. W.	Chelsea	48	M.	1897 Nov. 25	Multilocular cystic adenoma of left ovary	None
2	M. P.	Edmonton	46	S.	Dec. 9	Sarcoma and cystic disease of the right ovary; sarcoma of left ovary	None
3	S. W.	Guildford	20	S.	Dec. 9	Inflamed and adherent dermoid cyst of left ovary	Firm band-like adhesions to uterus, broad ligament and rectum
4	M. C.	Balham	63	S.	1898 Feb. 4	Inflamed cystic adenoma of left ovary; intra-cystic hæmorrhage	Recent adhesions to abdominal wall, older ones to omentum, &c.
5	C. C.	Kennington	46	S.	Feb. 10	Sarcoma and cystic disease of left ovary; sarcoma of right ovary	Firmly adherent to bowel behind and to bladder in front
6	A. A.	Balham	18	S.	Feb. 17	Cystic adenoma of right ovary; parovarian cyst, left side	Few recent adhesions to anterior abdominal wall
7	F. K.	Islington	30	M.	Feb. 24	Cystic adenoma of left ovary	None
8	E. R.	Southwark	43	M.	March 3	Cystic adenoma of right ovary	Slight adhesions to omentum
9	M. S.	Chertsey	57	M.	March 17	Unilocular cyst of left ovary	None
10	B. T.	Stockwell	42	M.	April 7	Unilocular cyst of right ovary	None
11	H. N.	Worcester Park	49	M.	April 14	Papillomatous cyst of left ovary; unilocular; growth all intra-cystic	Some vascular adhesions to large intestine were lacerated and divided
12	M. P.	Upton Park	40	M.	April 14	Inflamed broad ligament cyst, right side	Old adhesions

Parovarian or Broad Ligament Tumours.

Condition and treatment of the ovary.	Drainage.	Peritoneum flushed.	Result.	Remarks.
Normal	No	Yes	R.	Patient did not stand operation well, and remained in a weak state for about a week. For 2 or 3 days she had frequent vomiting, and was fed <i>per rectum</i> for 4 days. She afterwards rapidly gained strength, and made an excellent recovery.
Removed, see "Nature of tumour"	No	No	R.	See "Special Abstracts," No. 1.
Normal but adherent	No	No	R.	Patient had suffered from attacks of retention of urine for about 6 months before admission. The cyst, which was about the size of an orange, contained sebaceous material and hair. Excellent recovery.
Atrophic and adherent	No	No	R.	Edema of trunk and legs present. Cyst contained 8 pints of fluid. Pedicle long and slightly twisted. Uninterrupted recovery.
Removed, see "Nature of tumour"	No	No	R.	See "Special Abstracts," No. 1.
Contained a small cyst which was unctured	No	No	R.	Pedicle was about 2 inches long, and was twisted once to the left, causing complete nipping. The parovarian cyst on the opposite side was tapped and enucleated. Excellent recovery.
Normal	No	No	R.	Cyst contained 8 pints of fluid. Patient was much collapsed on evening of operation, but afterwards made an uninterrupted recovery.
Small cyst unctured	No	No	R.	On opening abdomen some dark blood-stained fluid escaped from the peritoneal cavity. The pedicle was twisted through two complete revolutions. The cyst, Fallopian tube, and fimbriæ were black from engorged blood. There was considerable hæmorrhage into the cyst, and extravasation into the cyst wall.
Normal	No	No	R.	Had been tapped twice by her doctor. The cyst contained 13 pints of fluid. Convalescence somewhat protracted owing to chronic bronchitis.
—	No	No	R.	Procidentia uteri. Amputation of cervix, and ventrofixation also done.
Normal	No	No	R.	Uninterrupted recovery. Came up in Feb., 1899, with growth in pedicle and scar.
Adherent	No	No	R.	Two small fibroids in posterior wall of uterus. Ventrofixation also done. Normal convalescence.

No.	Initials.	Residence.	Age.	Civil condition.	Date of operation.	Nature, &c., of tumour.	Adhesions.
13	E. J.	Fyfield, Gloucester	33	M.	1898 April 21	Dermoid cyst of left ovary, containing sebaceous material and hair; bony platelet in cyst wall	None
14	E. D.	Cane Hill, Purley	34	S.	May 12	Cystic adenoma of both ovaries	A few adhesions on right cyst
15	M. B.	Stockland, Devon	30	M.	June 10	Dermoid cyst of left ovary; inflamed, ruptured, and adherent	Numerous adhesions to uterus and rectum; surrounding intestines adherent to one another
16	A. P.	Fulham	55	M.	June 10	Multilocular cystic adenoma of left ovary	None
17	J. P.	Peckham	30	M.	June 23	Cystic adenoma of left ovary; twisted pedicle and intra-cystic hæmorrhage	Adhesions almost universal
18	M. G.	East Greenwich	39	M.	July 21	Suppurating cyst of left ovary, 3 inches by 2 inches	Numerous adhesions to omentum and intestine, &c.
19	E. W.	Boston, Lincs.	31	M.	Aug. 4	Suppurating cyst of left ovary growing in broad ligament; pelvic peritonitis	Recent adhesions to omentum and bowel
20	V. B.	Shaftesbury Avenue	45	M.	Aug. 11	Unilocular cyst of right ovary; multilocular cyst of left ovary	Few adhesions of cyst of left ovary
21	J. B.	Belgrave Square	65	W.	Aug. 19	Ovarian cyst growing below layers of broad ligament, left side. Intra-cystic hæmorrhage	Slight adhesions
22	F. S.	Croydon	59	M.	Aug. 25	Cystic adenoma of right ovary	None
23	A. E.	Clapham Park	23	S.	Sept. 8	Left parovarian cyst; twisted pedicle	Many and dense adhesions to bowel and pelvic wall
24	L. G.	Epsom	26	M.	Sept. 8	Cystic adenoma of left ovary	A few adhesions

Condition and treatment of other ovary.	Drainage.	Peritoneum flushed.	Result.	Remarks.
—	No	No	R.	Patient was about 3 months pregnant. About 10 days after operation a carneous mole was spontaneously expelled. Convalescence otherwise normal.
See Nature of tumour "	No	No	R.	Right weighed 5 lbs. 9½ oz., left 3 lbs. 3 oz. Excellent recovery.
Normal	No	No	R.	Cyst contained sebaceous material, hair, a plaque of bone, and a tooth. Excellent recovery.
Normal	No	No	R.	Intra-cystic hæmorrhage. Cyst contained about 6 pints of fluid. Normal convalescence.
Normal	No	No	R.	The pedicle was twisted through one turn; 4 inches of Fallopian tube distended with blood-clot was removed with the cyst. The fimbriated end was sealed up and adherent to the cyst wall. This seemed probably due to the twisting of the pedicle, as the portion of broad ligament removed with it was also engorged with blood. On the 2nd and 3rd day after operation the patient had a temperature varying between 103° and 104°; antistreptococcic serum was injected 3 times; temperature gradually fell, and was normal 10 days after operation. Wound healed by first intention, and no other bad symptom occurred.
Normal but adherent	Glass tube 2 days, rubber tube 6 days	Yes	R.	The cyst was ruptured during removal owing to separation of firm adhesions; 4 oz. of foul pus were collected. Patient had irregular rises of temperature for about 12 days after operation. Antistreptococcic serum, 10 c.c. were twice injected. Patient made a very good recovery.
Not examined	Glass drainage-tube	Yes	R.	Cyst contained 8 oz. of offensive greenish pus. Excellent recovery. Temperature never above 99·4°.
See Nature of tumour "	No	No	R.	Unilocular cyst contained 8 oz. of clear straw-coloured fluid. Multilocular cyst contained 22 oz. of dark chocolate-coloured fluid. Uninterrupted recovery.
Normal	No	Yes	R.	Cyst ruptured during removal. Excellent recovery. Highest temperature 99·6°.
Normal	No	No	R.	Excellent recovery. Highest temperature 99·6°.
Normal	No	No	R.	Left ovary was not removed. Axial rotation of broad ligament and tube in outer portion; hæmorrhage into cyst and wall of tube evidently caused by this twisting. Fimbriæ œdematous and swollen, and mesosalpinx engorged with blood. Excellent recovery. Highest temperature 99·4°.
Normal	No	No	R.	Cyst contained 4 pints 14 oz. of fluid. Uninterrupted recovery

No.	Initials.	Residence.	Age.	Civil condition.	Date of operation.	Nature, &c., of tumour.	Adhesions.
25	A. H.	Peckham	20	S.	1898 Sept. 15	Cystic adenoma of left ovary.	A few adhesions
26	L. W.	Bethnal Green	22	M.	Sept. 17	Inflamed dermoid cyst of right ovary; pelvic peritonitis with effusion	Universal adhesions to all surrounding parts
27	E. F.	Burfield, Berks	38	M.	Sept. 30	Cystic tumour of broad ligament; inflammation of cyst; pelvic peritonitis	Numerous, especially on posterior and inferior surfaces
28	C. G.	Kilburn	35	M.	Oct. 6	Left parovarian cyst	Adhesions to omentum and parietes
29	C. B.	Deptford	47	M.	Oct. 13	Cystic adenoma of left ovary; twisted pedicle; necrotic change in cyst	Numerous adhesions to bowel and parietes
30	E. P.	Brentford	52	M.	Oct. 21	Cystic adenoma of right ovary; twisted pedicle; early necrotic change in cyst wall; intra-cystic hæmorrhage	Very extensive adhesions to abdominal wall and to omentum
31	E. McC.	Guernsey	60	W.	Nov. 10	Cystic adenoma of left ovary	Adhesions to abdominal wall
32	B. C.	Camborne, Cornwall	21	S.	Nov. 17	Cystic adenoma of left ovary	None
33	L. S.	Lower Edmonton	27	M.	Nov. 18	Small focus of suppuration in right ovary; sinus in abdominal wall	Very numerous adhesions
34	C. C.	South Streatham	17	S.	Dec. 1	Cystic adenoma of right ovary; ruptured	Slight
35	M. B.	Penge	18	S.	Dec. 1	Dermoid cyst of left ovary	None
36	B. T.	Sutton	32	M.	Dec. 2	Small inflamed and adherent cyst of left ovary; chronic salpingitis	Universal

Condition and treatment of the ovary.	Drainage.	Peritoneum flushed.	Result.	Remarks.
Small cyst (unruptured)	No	No	R.	Cyst contained 4 pints 4 oz. Uninterrupted recovery. Highest temperature 99°6°.
Not seen	Rubber tube 3 days	Yes	R.	There was a considerable quantity of serous fluid with flakes of lymph in the pelvis. The cyst was ruptured during removal, and some thick sebaceous material escaped into the peritoneum. The cyst after removal was found much inflamed, and patches of ulceration were seen on the inner surface. After operation two injections of antistreptococcic serum, 10 c.c., were given, as the temperature rose to 102°2° on the day after operation.
Not noted	No	No	R.	Excellent recovery.
Not seen	No	No	R.	Cyst, which contained about 2 pints of fluid, was shelled out of broad ligament. Recovery delayed by slight pleuritic attack.
Normal	No	No	R.	The larger portion of the cyst—more than $\frac{3}{4}$ —was soft, doughy, and necrotic, and was filled with broken-down tissue and blood-clot. Patient made an excellent recovery.
Normal	No	Yes	D.	During operation there was considerable oozing from area of separated adhesions on abdominal wall. About 8 hours later patient became very collapsed, so abdomen was reopened; pedicle was found quite secure, but there was a good deal of blood in the pelvic cavity; this was sponged out. Patient did not rally, dying in a few hours.
Normal	No	No	R.	Cyst contained 14 pints of fluid, and was intra-ligamentous. Recovery uneventful.
Normal	No	No	R.	Cyst contained 4 pints 4 oz. Excellent recovery. Temperature never above 99°6°.
Not noted	No	No	D.	Microscopic examination of suppurating focus showed the structure of a papilliferous adenoma; it was thought to be the remains of larger cyst, which had discharged externally. P.M.—General peritonitis; pelvic cavity full of blood.
Normal	No	No	R.	Patient gave a history of having fallen out of a cart 5 weeks before admission, in consequence of which she was laid up with severe abdominal pain for some time. This was probably the occasion of the rupture of the cyst; the edges of the rupture were tucked in and adherent, so that it was evidently of some standing; there were 23 oz. of fluid free in the abdomen. Convalescence was interrupted by an attack of pneumonia at right base; this cleared up in 5 days, and patient afterwards made an uneventful recovery, and was discharged 4 weeks after operation.
Large cystic (ruptured) (tatted in adhesions)	No	No	R.	Excellent recovery.
	Glass tube 2 days	Yes	R.	The cyst was about the size of a Tangerine orange, and contained very offensive broken-down blood-clot. The tube was somewhat thickened, but it was not thought advisable to remove it. Excellent recovery.

SPECIAL TABLE II.—*Abdominal Section for Disease*

No.	Initials.	Residence.	Age.	Civil condition.	Date of operation.	Nature of disease.	Nature of operation.
1	C. H.	Cambridge	27	M.	1897 Nov. 16	Left tubal mole; hæmatosalpinx; pelvic hæmatocele; double chronic salpingitis	Left tube and ovary removed with blood-clot and adventitious sac of hæmatocele
2	A. T.	Holloway	39	M.	Dec. 10	Pyosalpinx (right) and small ovarian abscess	Appendages of both sides removed
3	E. B.	Lambeth	22	S.	1898 Jan. 20	Chronic salpingitis (right); pelvic peritonitis	Appendages of right side removed
4	A. R.	New Cross	32	W.	Jan. 27	Left salpingitis and small suppurating ovarian cyst	Fallopian tube and cystic ovary of left side removed
5	E. S.	East Dulwich	19	S.	Feb. 4	Myoma of right Fallopian tube	Removal of right Fallopian tube
6	V. L.	Brixton	24	M.	March 10	Left salpingitis	Removal of left Fallopian tube and ovary
7	M. A.	Edmonton	40	M.	April 19	Purulent salpingitis; right suppurating cyst of right ovary; pelvic hæmatocele (left)	Removal of right appendages
8	M. J.	Belgrave Square	35	M.	April 21	Left pyosalpinx; right salpingitis; cystic ovaries	Both tubes and ovaries removed
9	M. T.	Battersea	24	M.	April 28	Right pyosalpinx; purulent salpingitis and small suppurating ovarian cyst on left side	Fallopian tube of right side and appendages of left side removed

f the Fallopian Tubes, including Tubal Gestation.

Drain- age- tube.	Perito- neum flushed.	Result.	Remarks.
No (see re- marks)	No	R.	Operation delayed for a month as hæmatocele was thought to be diminishing; as further observation did not confirm this, and as patient suffered from attacks of faintness on several occasions, the abdomen was opened, and the distended tube and sac of hæmatocele removed together with blood-clot. Progress at first unsatisfactory. On Dec. 10th a large collection of altered semi-purulent blood was opened and drained. Recovery subsequently uninterrupted.
No	No	R.	Uninterrupted recovery.
No	Yes	R.	Encysted collection of coagulable serum and lymph in pelvis. Excellent recovery.
No	No	R.	For a fortnight after operation temperature never rose above 99°; on the 15th day it rose to 101·8°, and on the 16th to 104·4°, and after fluctuating for a few days between 100° and 102° became normal again by the 24th day. A hard mass in the left iliac fossa, evidently cellutitic, was the cause of this febrile attack. It disappeared without the formation of pus.
No	No	R.	See "Special Abstracts," No. 2.
No	No	R.	There was early cystic disease of the right ovary. Excellent recovery; temperature never above 99·2°.
No	No	R.	Patient had been in ward 3 weeks before for left pelvic hæmatocele, for which operation was not thought necessary, as it was evidently undergoing absorption. She was admitted a second time with a large swelling on the right side. While under observation the mass seemed to increase, and she had irregular rises of temperature amounting to 103° or so at night. She was therefore operated on, and a tubo-ovarian abscess of the right side removed; some small masses of blood-clot, the remains of the hæmatocele, were removed from the left side. Suppuration in lower part of the wound. Temperature did not become normal for 3 weeks.
No	Yes	R.	Uninterrupted recovery.
No	No	R.	Excellent recovery.

No.	Initials.	Residence.	Age	Civil condition.	Date of operation.	Nature of disease.	Nature of operation.
10	C. C.	Camberwell	37	M.	1898 May 5	Left pyosalpinx and tubo-ovarian abscess	Removal of left appendages
11	S. L.	Walworth	26	M.	May 12	Right hydrosalpinx and early cystic ovary; retroflexed uterus	Removal of right appendages; ventro-fixation
12	J. J.	Streatham	33	M.	May 19	Left tubal gestation; pelvic hæmatocele	Left Fallopian tube and sac of hæmatocele removed
13	J. G.	Battersea	40	M.	May 19	Chronic tubercular salpingitis; early cystic ovary; pelvic peritonitis (right)	Removal of right tube and ovary; separation of adhesions
14	M. C.	Putney	35	M.	May 24	Ruptured interstitial pregnancy; pelvic hæmatocele (left)	Left Fallopian tube with part of broad ligament and gestation sac removed
15	H. B.	Blackfriars Road	32	S.	July 7	Left pyosalpinx; right non-purulent salpingitis	Removal of appendages of both sides
16	H. B.	Peckham	23	M.	July 28	Chronic salpingitis and cystic ovary (left)	Left tube and ovary
17	F. S.	St. Denis, Hampshire	30	M.	Aug. 2	Double salpingitis; cystic right ovary; pelvic peritonitis	Removal of right appendages; ventro-fixation
18	H. B.	Vauxhall	39	M.	Aug. 10	Tubal gestation (right side); rupture; intra-peritoneal hæmorrhage	Removal of right Fallopian tube and ovary with products of gestation
19	M. B.	Edgware Road	29	M.	Aug. 11	Double chronic salpingitis; cystic right ovary	Removal of left tube and right ovary
20	J. B.	Lambeth	23	M.	Aug. 18	Double tubercular pyosalpinx; tubercular cyst of left ovary; miliary tubercle of peritoneum	Removal of appendages of both sides
21	L. M.	White-chapel	20	M.	Aug. 18	Double salpingitis; cystic ovaries; serous perimetritis	Appendages of both sides removed
22	S. T.	Newington	43	M.	Aug. 25	Right chronic salpingitis and inflamed cystic adenoma of ovary; left hydrosalpinx	Appendages of both sides removed
23	A. C.	Clapham	21	S.	Aug. 29	Chronic salpingitis and inflamed cystic ovary (right)	Right tube and ovary removed

Drain- age- tube.	Perito- neum flushed.	Result.	Remarks.
No	No	R.	The pyosalpinx communicated with an ovarian cyst about the size of a turkey's egg, and containing about 2 oz. of very offensive pus. Patient was very collapsed at the end of the operation, and was given 2 injections of Liq. Strychnin., mv , and infused with 10 oz. of normal saline solution. She afterwards made an excellent recovery.
No	No	R.	Excellent recovery.
No	Yes	R.	Chorionic villi found in specimen. The fimbriated end of the tube opened into the sac of the hæmatocele. Convalescence delayed by right pleural effusion.
No	No	R.	Mr. Shattock considered the swollen mucosa of tube to be tubercular. Patient made an excellent recovery.
No	Yes	R.	See "Special Abstracts," No. 3.
No	No	R.	The left tube contained about 4 oz. of pus, thick, greenish yellow, non-offensive; wall and mucous membrane of right tube thickened; both ovaries cystic.
No	No	R.	Excellent recovery.
No	No	R.	Excellent recovery.
No	No	R.	Excellent recovery; highest temperature 100.4° ; three days after operation a complete decidual cast of uterus was passed.
No	No	R.	Excellent recovery.
Glass tube for 24 hours	Yes	R.	The tubes and small cyst of left ovary contained thick, yellow, cheesy pus. Examination of interior of cyst and of tube wall showed typical tubercular structure. Good recovery from operation. Patient continued to have evening rises of temperature up to the time of her discharge.
No	No	R.	Excellent recovery.
No	No	R.	Excellent recovery.
No	No	R.	Patient had been in hospital before, and had only been discharged a few days when she was readmitted with recurrence of symptoms. Operation, which had not been thought necessary before, was now advised and performed. Right appendages removed. Excellent recovery.

No.	Initials.	Residence.	Age.	Civil condi- tion.	Date of operation.	Nature of disease.	Nature of operation.
24	E. M.	Camden Town	35	M.	1898 Sept. 1	Double salpingitis; cystic adenoma of left ovary	Removal of appendages of both sides
25	S. T.	Kenning- ton	29	M.	Sept. 9	Tubal mole in left Fallo- pian tube; hæmatosal- pinx	Removal of left tube
26	S. D.	Maida Vale	51	W.	Sept. 15	Left hydrosalpinx	Left tube removed
27	M. J.	Kingston, Cambridge	28	S.	Oct. 6	Inflamed Fallopian tube and suppurating ovarian cyst (left)	Left tube and ovarian cyst removed
28	A. G.	Pimlico	28	M.	Oct. 20	Left chronic salpingitis; pelvic peritonitis	Removal of left appendages
29	A. D.	Kenning- ton	35	M.	Oct. 25	Right hæmatosalpinx; contents decomposing	Removal of right appendages
30	E. S.	Battersea	36	M.	Oct. 29	Left pyosalpinx; intra- peritoneal abscess; peri- tonitis	Left tube removed; abscess drained
31	A. M.	Lambeth	22	M.	Nov. 3	Double salpingitis; pelvic peritonitis	Removal of right appendages

Drainage-tube.	Peritoneum flushed.	Result.	Remarks.
No	No	R.	Uninterrupted recovery.
No	No	R.	The history was that of a tubal pregnancy—7 weeks amenorrhœa followed by severe pelvic pain with irregular hæmorrhagic discharge. The tube removed was dilated into an irregular swelling containing soft blood-clot, together with some firmer masses closely adherent to the tube wall. No evidence of any amniotic sac or embryo. The fimbriated end of the tube was closed, and there was no hæmatocele. The microscopic report from the clinical laboratory said “no chorionic villi have been found. Certain objects in some parts of the sections may have been villi, but were not sufficiently definite to warrant a positive diagnosis.” Patient made a very good recovery, and was discharged well. She was readmitted in Feb., 1899, with a similar history, and had a right tubal gestation removed.
No	No	R.	There was some ovarian tissue in the pedicle. Excellent recovery.
Glass tube 2 days; rubber tube 2 days	Yes	R.	The cyst was about the size of an orange, and was densely adherent to the back of the uterus and surrounding structures. It contained broken-down semi-purulent <i>débris</i> , and its walls were soft and œdematous, so that they tore during removal. The Fallopian tube was acutely inflamed, and evidently the cause of infection. Excellent recovery. Maximum temp. 99·6°.
No	No	R.	Uninterrupted recovery.
Glass tube 2 days; rubber tube 6 days	No	R.	3 weeks after a period patient was seized with severe abdominal pain lasting 2 days; irregular hæmorrhages and abdominal pain continued for 2½ months, <i>i.e.</i> up to the time of admission. The tube removed was acutely inflamed, and ended in a saccular dilatation filled with offensive broken-down blood-clot. No signs of fimbriæ could be made out. The ovary was attached to the wall of the sac. Microscopic examination of the sac wall showed no structure which would indicate its tubal origin. The structure was that of fibrous tissue (?adventitious cyst wall). No evidence of gestation found. Excellent recovery.
Glass tube	Yes	D.	Patient had abdominal pain for 6 months; 6 days before admission she had an abortion. On admission temperature varied between 101° and 103°, pulse 120; abdomen distended; <i>per vaginam</i> a swelling behind the uterus depressing the vaginal roof could be made out; no definite fluctuation. At the operation a collection of pus was found in the pouch of Douglas; the left Fallopian tube was inflamed and distended with pus. P.M.—Considerable quantity of pus in pelvis, also between the coils of intestine on the left side, reaching upwards as far as the diaphragm. Some injection and distension of intestines.
No	No	R.	Excellent recovery.

No.	Initials.	Residence.	Age.	Civil condi- tion.	Date of operation.	Nature of disease.	Nature of operation.
32	E. L.	Stroud Green	31	M.	Nov. 17	Left pyosalpinx	Left tube removed

Drain- age- tube.	Perito- neum flushed.	Result.	Remarks.
No	No	R.	<p>The tube was retort-shaped with the fimbriated end closed; it was thus converted into a fluctuating cyst. On opening this sac it was found to contain caseous material like that seen in tuberculous glands. On washing out the interior of the tube numbers of small, clear, bead-like bodies were seen in the mucous membrane of the tube. A culture from the contents proved sterile. Microscopic sections of the small elevations showed them to consist of young granulation tissue, showing no giant-cells or caseation. No evidence of the tuberculous nature of the condition was found. Patient made an uninterrupted recovery. Maximum temp. 99.4°.</p>

SPECIAL TABLE III.—*Cases*

No.	Initials.	Residence.	Age.	Civil condition.	Date of operation.	Nature of disease.
1	A. M.	Middleton Cheney, Banbury	42	S	1897 Dec. 16	Soft interstitial fibro-myoma of uterus; dysuria
2	E. P.	Dovercourt	36	S.	1898 March 31	Fibro-myoma of anterior wall; retention of urine (periodic)
3	S. T.	Whimble, near Exeter	48	S.	June 2	Uterine fibro-myomata
4	C. E.	Middle Barton, Oxfordshire	51	S.	Aug. 4	Subserous fibroid growing from fundus of uterus
5	F. B.	Stroud, Kent	30	M.	Sept. 1	Fibro-myomata of uterus
6	A. C.	Bermondsey	25	S.	Sept. 29	Fibroid of posterior wall of uterus; retention of urine at each menstrual period
7	M. LeC.	Alderney	36	S.	Oct. 13	Fibro-myoma of uterus
8	E. F.	Peckham	67	S.	Oct. 19	Sloughing submucous fibro-myoma of body of uterus
9	M. S.	Lambeth	36	S.	Oct. 20	Subserous fibro-myomata of uterus
10	A. B.	Walworth	51	M.	Dec. 8	Fibro-myomata of uterus; retention of urine

Abdominal Hysterectomy.

Drain- age.	Perito- neum flushed.	Result.	Remarks.
No	No	R.	The fibroid was œdematous. Patient made an excellent recovery.
No	No	R.	Patient had retention of urine at menstrual period for last 7 months; in addition she complained of frequency of micturition between the periods, and of increased menstrual loss and pain. She made an excellent recovery.
No	No	R.	Patient had severe sickness on the 2nd and 3rd day after operation; during this time feeding <i>per rectum</i> was adopted. A fortnight after operation some cellulitis was noted in the right iliac fossa, but this cleared up in a week or so.
No	No	R.	An œdematous fibro-myoma weighing over 7 lbs. Patient made an excellent recovery, and was discharged 3 weeks after operation.
No	No	R.	œdematous, weight 3 lbs. Uninterrupted recovery.
No	No	R.	Tumour about the size of a fetal head. Slight rises of temperature for about 3 weeks after operation.
No	No	R.	Weight 7 lbs. Measured $8 \times 5 \times 4\frac{1}{2}$ inches. Excellent recovery. Left hospital under 4 weeks.
No	No	D.	Panhysterectomy by combined vaginal and abdominal method. See "Special Abstracts," No. 5.
No	No	R.	One large subperitoneal fibroid grew from posterior wall of the uterus; two others had burrowed into the right broad ligament, and were soft and œdematous. Uninterrupted recovery.
No	No	D.	Patient had suffered from retention of urine for 18 months; she was twice admitted to the hospital for this, but operation was not advised as the tumour was thought to be burrowing into the broad ligament, and as the menopause could not be far off; however the retention caused her to come up once or twice a week to the hospital, so operation was decided on, and abdominal hysterectomy performed. The uterus contained two large fibroids—one measuring $5\frac{1}{2} \times 4\frac{1}{2}$ inches—and several smaller ones. The largest one was enucleated from the left broad ligament. Patient had much sickness after operation; the abdomen became very distended, death taking place on the 5th day. P.M.—General plastic peritonitis.

SPECIAL TABLE IV.—*Abdominal Sections other*

No.	Initials.	Residence.	Age.	Civil condition.	Date of operation.	Nature of disease.	Nature of operation.
1	A. W.	Old Kent Road	32	S.	1898 Jan. 19	Prolapse of uterus	Ventro-fixation of uterus
2	M. H.	Connington, Peterborough	16	S.	Jan. 27	Tuberculous disease of peritoneum; matting together of pelvic viscera simulating tumour	Exploratory laparotomy
3	E. Y.	Edmonton	28	M.	March 10	Prolapse of uterus and anterior vaginal wall; hypertrophic elongation of cervix	Ventro-fixation of uterus; amputation of cervix
4	S. H.	Battersea	33	M.	April 28	Encysted perimetritis; chronic inflammation of uterine appendages	Laparotomy; separation of adhesions and removal of fluid
5	S. H.	Old Ford, E.	34	M.	June 23	Pelvic cellulitis of the left broad ligament; intra-peritoneal abscess	Laparotomy; drainage of intra-peritoneal abscess
6	L. E.	Windsor	50	W.	June 30	Carcinoma of cervix uteri; secondary growths in peritoneum	Exploratory laparotomy
7	M. T.	Oxford Street	30	M.	Aug. 2	Subserous fibroid in posterior wall of uterus	Myomectomy
8	C. B.	Clapham	32	M.	Oct. 27	Retroflexed and adherent uterus	Separation of adhesions; ventro-fixation
9	M. B.	Epsom	39	S.	Oct. 27	Fibro-myoma of uterus (intra-pelvic); pelvic peritonitis	Separation of adhesions

than those contained in the preceding Tables.

Drain- age.	Perito- neum flushed.	Result.	Remarks.
No	No	R.	Good result.
No	No	R.	On examination the uterus was found impaired in mobility, and pushed forward by a swelling occupying the whole of the posterior part of the pelvis, and reaching to about $3\frac{1}{2}$ inches above the symphysis. On opening the abdomen the bowel was punctured owing to its being so universally adherent, the wound being immediately closed with three Lembert's sutures of fine silk. The pelvis was filled with densely matted intestines. Miliary tubercles were seen on the peritoneum, and enlarged glands felt in the mesentery. The abdomen was then closed. Patient made an excellent recovery from the operation.
No	No	R.	Good result.
No	Yes	R.	Patient suffered from severe attacks of vomiting coming on 2 days after operation, and continuing for 2 days, during which time nutrient enemata were given. She afterwards made a good recovery.
Rub- ber tube 14 days	No	R.	Admitted for pelvic pain after confinement a month before. Temperature 103° or so at night, and coming down in the morning; hard painful swelling in the left iliac fossa. <i>Per vaginam</i> : no depression of vaginal roof; hard mass on left side, extending from uterus to pelvic wall. Later on a mass formed in Douglas's pouch, and could be plainly felt <i>per rectum</i> . The abdomen was opened and an abscess drained. A fortnight later an incision was made over the mass in the left iliac fossa, but no pus found. A week after this there were signs of pus pointing in the left groin; this was opened, and about $\frac{1}{2}$ oz. of pus evacuated. Patient made good progress after this, and was discharged cured 10 weeks after admission.
No	No	R.	18 months before cervix was amputated at Bath for carcinoma.
No	No	R.	A soft fibroid tumour, measuring $2\frac{1}{2} \times 2\frac{1}{4} \times 2$ inches, was shelled out of the posterior wall of the uterus. Patient made an excellent recovery.
No	No	R.	Uninterrupted recovery.
No	No	R.	Uninterrupted recovery.

SPECIAL ABSTRACTS.

1. SARCOMA IN OVARIAN CYST, WITH SARCOMA OF OTHER OVARY; OVARIOTOMY. (2 CASES.)

1. M. P—, æt. 46. Single. Admitted December 4th, 1897; discharged January 8th, 1898. Family history good; measles as a child, and “slow fever” with swelling of legs three years ago.

Since 17 catamenia had been quite regular till preceding 2 years; for a year they were irregular and then ceased entirely.

Present illness began two or three years before admission with occasional pain and swelling in the right side of the abdomen; this was unconnected with menstruation. For a year she had noticed hardness in the abdomen. Latterly she had suffered more discomfort than pain; no difficulty in micturition but some in defæcation. Three weeks before admission she was seen by her doctor, who told her she had a tumour.

On admission she was a healthy-looking woman. On examination the abdomen was found occupied by a large tumour reaching above as high as the costal margin and passing into the pelvis below. The swelling was smooth, elastic, not very tense, and gave a fluid thrill. Percussion note dull over the tumour, resonance in the flanks. Circumference of abdomen at umbilicus was 31 inches. Urine normal.

Per vaginam: the abdominal tumour could be felt through the anterior vaginal wall; no depression of vaginal roof; uterus was retroverted, lying behind and to the right of the tumour. A harder portion of the tumour could be felt immediately in front of the cervix. Uterine canal of normal length.

Operation (December 9th).—On opening the abdomen a small quantity of ascitic fluid escaped. The cyst was tapped, 4 pints of chocolate-coloured fluid being removed. On drawing the collapsed cyst out of the abdomen a more solid mass was felt in the lowest part of its walls; in getting this part out of the wound a portion of the cyst wall tore and allowed some of the fluid contents to escape into the abdomen. The pedicle was then transfixed and the tumour removed. The cyst was of the right side. The left ovary was examined and found slightly enlarged and harder than normal; it was removed. The peritoneal cavity was then sponged out and the abdomen closed. The tumour removed consisted of one large cyst, with extremely hard, solid masses in the part near the pedicle. The interior of the cyst

over an area of 3 inches diameter, near the solid part of the tumour, was covered by an irregular warty growth of extremely hard consistence; there were a few separate warty growths at some distance from the main mass. At another part was an intra-cystic growth the size of a cherry, of softer consistence, and giving the appearance of papilloma. The rest of the tumour consisted of several rounded cartilaginous masses surrounded by a smaller cyst, which contained altered blood, and which had been ruptured during removal. The left ovary was slightly enlarged, and consisted largely of hard cartilaginous tissue, like the harder portion of the tumour in the right side. There was also a small cyst about the size of a marble containing glairy mucus.

The report from the pathological laboratory on the microscopic examination said:—"Both ovaries show a spindle-celled sarcomatous growth; the nodules in the cyst wall are of dense fibrous tissue (? sarcomatous). The hard mass in the small cyst also shows the same sarcomatous growth." (S. G. Shattock.)

The patient made an uninterrupted recovery, and was discharged 30 days after operation.

2. C. C—, æt. 46. Single. Admitted February 5th; discharged March 5th, 1898. Nothing in family or previous history. Catamenia had been regular up to the preceding twelve months, during which time they had appeared at lengthening intervals; last period seven weeks ago. Patient had suffered from occasional attacks of abdominal pain for the preceding three years, especially in the left side, and worse after hard work. She had noticed a swelling in the abdomen for three months. She had a severe attack of abdominal pain on Tuesday, January 25th, while working a sewing machine.

On examination the abdomen appeared enlarged and bulged, especially towards the left side. An irregular mass could be felt in left lower part of the abdomen, its long axis lying in the left iliac fossa. The tumour was hard, rough, and lobulated; it did not feel cystic; no tenderness on deep palpation. The abdomen was resonant except over the tumour. No shifting dulness was made out. Urine normal.

Per vaginam: the posterior vaginal fornix and the posterior and right sides of the vagina were depressed by a swelling of the same hard and lobulated character as that of the tumour felt by the abdomen. No swelling was felt on the left side. The uterus was connected with the tumour, the cervix being moved on moving the tumour, but the whole mass of uterus and tumour together were freely moveable. The uterine sound passed the normal distance posteriorly and to the left.

Operation (February 11th).—On opening the abdomen some blood-stained easily coagulable ascitic fluid escaped, and continued to run away during the early part of the operation. Owing to the tumour being adherent below to intestine and bladder, considerable difficulty was experienced in getting it out of the wound. The adhesions to bowel were separated by the finger, but in doing so the bowel wall was slightly injured, necessitating some fine Lembert sutures. The adhesions to bladder were freed in the same way and the tumour brought out of the wound. It was found to be hard and

solid in parts, and elsewhere to be soft and cystic. The pedicle, which was twice twisted, was then ligatured and cut off. The right ovary was examined and removed, as it felt hard and was apparently also diseased. The large cystic tumour of left ovary measured 9 by 6½ by 4 inches, and weighed 3 lbs. 10½ oz. It consisted of a large cyst containing half a pint of clear serous fluid, and numerous smaller cysts also containing serous fluid. The solid part of the tumour was irregular and lobulated, and consisted of a whitish solid of almost cartilaginous hardness. The right ovary was small, flattened, and harder than normal. It contained one small cyst.

The pathologist's report of the microscopic examination was:—"Sarcoma of left ovary; early sarcoma of right ovary."

Patient made very satisfactory progress after the operation, the highest temperature being 99·8° on the day after operation. She remained anæmic, and when discharged three weeks after operation, had some shifting dulness in the flanks.

Note.—On February 15th, 1899, the patient was admitted to Surgical side for intestinal obstruction; she had been in excellent health up to this time. She was operated on and extensive adhesions between intestinal coils separated, and died a few hours later. P.M.—Coils of intestine generally adherent; some adhesions broken down at operation, and contained blood in their meshes. Several ounces of blood-stained fluid in the pelvis. Pelvic organs: both ovaries absent, few adhesions on uterus posteriorly, but uterus otherwise normal. Left Fallopian tube normal, right tube absent. Minute fibrous nodule on broad ligament, but no trace of ligature. There was not the slightest sign of recurrence of growth in the pelvis. Liver showed early cirrhosis. Kidneys slightly sclerotic. Heart soft and flabby.

2. MYOMA OF FALLOPIAN TUBE; LAPAROTOMY; REMOVAL OF TUBE.

E. S—, æt. 19, single. Admitted January 15th, discharged April 2nd, 1898.

Patient was in Adelaide Ward in December, 1896, for severe pain in right side of the abdomen at the menstrual periods. Examination showed the uterus retroverted, and extending behind it a hard mass about the size of a pigeon's egg, which was thought to be the enlarged right ovary. It was fixed, and could still be made out when the fundus of the uterus was brought forward with the sound.

She was then discharged as relieved, but continued to attend the out-patient department. She was readmitted on January 15th, 1898, for persistence of symptoms. She always had had severe pain with every menstrual period, not bad enough to make her keep her bed, but enough to quite unfit her for work for about a week out of every month, and so making it impossible for her to go out to service. Any exertion aggravated the pain.

Nothing was made out on abdominal examination. *Per vaginam*: on the right side above the vaginal roof a hard, elongated mass was felt, which

corresponded roughly in position with the right ureter. This mass also extended behind the uterus, which was slightly impaired in mobility. The mass was tender and fixed, and was estimated to be about the size of the fore-finger.

On February 4th the abdomen was opened; the right ovary was found bound down by adhesions; these were separated, and the tube and ovary brought out of the wound. The end of the tube nearest the uterus was found enlarged by a hard, firm swelling; this portion of the tube was then removed, leaving behind about $1\frac{1}{2}$ inches of the fimbriated extremity. The peritoneal cavity was then sponged out and the abdomen closed.

The tumour removed proved a myoma of the Fallopian tube, and is preserved in the St. Thomas's Hospital Museum (No. 2401 B). It is a rounded oval in shape, the size of a large hen's egg; it is firm and solid in consistence. On section, a central canal is seen apparently lined with mucous membrane, running right through the tumour quite centrally, probably the dilated lumen of the Fallopian tube. When cut into the tube contained about a drachm of altered blood. The report from the pathologist says: "The growth is a pure myoma, and that it involves the tube is shown by the microscopic section exhibiting normal mucosa on its inner surface; the lumen of the tube is quite central as regards the tumour."

Patient had a very protracted convalescence. A few hours after the operation she became very collapsed, but recovered after stimulation with brandy and strychnine. The bowels were opened slightly on the third day as the result of an enema, and well opened on the fourth day after castor oil.

About the end of the week she begun to complain of pain in the lower part of the abdomen, and the temperature fluctuated between 100° and 102° . A definite sense of resistance was noticed about the lower end of the wound. This was opened, but no pus escaped. On February 25th the wound was further opened up and a little sero-pus evacuated; after this the temperature assumed a slightly lower level. The lower part of the wound was plugged with gauze and allowed to granulate up, and patient slowly recovered, and was discharged eight weeks after operation. The note of the vaginal examination made on her discharge says, "The uterus is adherent to the abdominal wound; there is some thickening on the left side; on the right side a thick mass can be felt extending out from the uterus."

3. RUPTURED INTRA-LIGAMENTOUS PREGNANCY, WITH PELVIC HÆMATOCELE; LAPAROTOMY.

M. C—, æt. 35, married. Admitted May 21st, 1898, discharged June 15th, 1898. Catamenia always regular. Patient was married in September, 1888, but has had no children and no miscarriages. The last menstrual period was on February 20th; the flow was more scanty than usual, and only lasted two or three days. There has been no hæmorrhage or discharge of any kind since.

Present illness.—Two months ago patient noticed that her abdomen was

getting larger, and that she had a "great deal of wind." She thought she was pregnant; there was no morning sickness, but she had two bilious attacks on April 23rd (*i. e.* about a month before admission). Patient, after having taken an aperient, and while straining at stool, was suddenly seized with very acute pain, the pain being referred to the "front and back passages;" she felt as if "something had come down." Patient went to bed and a doctor was sent for. The acute pain lasted twenty-four hours; after that there was a dull aching pain, which was felt in that side of the abdomen on which she was lying, or in the lower part of the back if she was lying on her back. After remaining in bed for a week, patient got up, but after three days she had a similar attack of pain, quite as acute as the first, and had to go back to bed. Since then she had several similar attacks, she thought six or seven in all; the last three took place on May 15th, 17th, and 19th. The attacks usually came on after taking opening medicine or after straining. There was no fever at the time of the attacks, nor vomiting; she did not faint; patient remained in bed for two or three days after each attack; there was usually some difficulty with micturition, and the bowels were constipated. For two months the breasts had been enlarging. For the last year she has been becoming thinner.

On examination the heart and lungs were found normal. Breasts full, with superficial veins prominent; a few beads of clear serum could be squeezed out of them. The right side of the abdomen was more prominent than the left, and on percussion the note over the lower part of the abdomen was dull, the area of dullness extending 4 inches above the pubes on the left, and $5\frac{1}{2}$ inches on the right. On palpation a somewhat hard, non-fluctuating tumour could be felt in the lower part of the abdomen, lying more to the right side than to the left. There was considerable tenderness in the right iliac fossa. In the middle line the tumour rose to within half an inch of the umbilicus, and the highest point of the tumour on the right side was on a level with the umbilicus, and on the left side $2\frac{1}{2}$ inches below the umbilicus. The urine was normal.

Per vaginam: a soft cystic swelling was found distending Douglas's pouch, and apparently subjacent to the main swelling, which, though tense, had a distinctly cystic consistency. The cervix was pushed forwards towards the pubes, and the os was directed almost directly backwards. The sound passed $2\frac{3}{4}$ inches upwards and forwards; the point could be felt $2\frac{3}{4}$ inches above the pubes, where the fundus could be distinctly mapped out. The swelling reached above the level of the fundus, and was on a plane behind it.

Operation (May 24th).—On opening the abdomen, the mass was found to be a hæmatocele occupying Douglas's pouch, and rising above the fundus uteri, to which it was adherent. On separating the adhesions a large quantity of dark blood-clot was exposed. The whole of the back of the pelvis was filled with a soft, firm clot, adherent to the back of the uterus; a fœtus, apparently between three and four months, was found lying in the midst of the clot, and the umbilical cord could be traced to the left Fallopian tube, in which a large tear was seen. The left appendages, together with blood-clot and gestation sac, were removed, the pelvis douched with boracic lotion at 105° , and then sponged dry. Before closing the abdomen the

uterus was examined and found to be enlarged to the size of a two months' pregnancy.

The parts removed consisted of the left Fallopian tube, part of the broad ligament, and ruptured extra-uterine gestation sac with the accompanying ovary. Between the layers of the broad ligament was the cavity of an intra-ligamentous pregnancy, which, however, only contained placental tissue; the tube could be traced along the upper and anterior wall of this cavity, into which it was found to have ruptured close to its fimbriated end. On opening the tube its lumen was not noticeably enlarged, and its mucous membrane appeared normal; the fimbriated end could not be defined. There was a large tear along the posterior wall of the intra-ligamentous gestation sac, apparently due to removal at the time of operation. The broad ligament could be traced outwards from this situation, and was lost on the inner half of the amniotic sac, where the secondary rupture had evidently taken place. The length of the foetus was $5\frac{3}{8}$ inches from occiput to heel, and it had evidently not been dead for any length of time. Its digits were well defined and the sex (male) distinct. Its age was thought to be about $3\frac{1}{2}$ months. The cord was $7\frac{1}{2}$ inches, and joined the wall of the gestation sac close to the outer part of the broad ligament. The ovary in section showed two distinct corpora lutea, each roughly $\frac{1}{2}$ inch in diameter. The amount of blood-clot removed was $1\frac{1}{4}$ pints. The conclusion arrived at was that there had originally been a left tubal gestation close to the fimbriated extremity, and that this had ruptured early (probably within the first month) into the broad ligament, and that the pregnancy had proceeded uninterruptedly there until within the last week or so, when secondary rupture had taken place, with the escape of the foetus and the formation of a large hæmatocele.

Patient made an excellent recovery, the temperature never reaching 100° . On the sixth and seventh days after operation, patient passed several shreds of decidua, the longest about an inch square.

4. RECURRENT POLYPOID FIBRO-MYOMATA OF UTERUS; VAGINAL HYSTERECTOMY.

E. S—, æt. 30, single. Admitted October 8th, discharged November 9th, 1898. Up to February, 1896, menstruation had been regular, of 28-day type, and lasting five or six days. Following an attack of rheumatism at this time the menstrual loss increased, until in August, 1896, patient was admitted to Adelaide, having suffered from continuous loss for a month previously.

On August 14th a submucous fibroid as large as a hen's egg was enucleated from the left side of the uterus, just within the internal os; on August 29th an oblong pedunculated fibroid about 2 inches by $2\frac{1}{2}$ inches, dark green in colour, and very œdematous, was removed from the anterior part of the left side of the cervical canal. Patient was discharged on September 9th. For two or three months she was quite well, and then the loss reappeared, so she was admitted again in June, 1897, and a soft œdematous fibroid polyp,

which was found projecting from the external os, removed; it was as large as a hen's egg. A fortnight later a large mass was found filling up the cervix; it was removed, and measured $4\frac{1}{2}$ inches by $3\frac{1}{2}$ inches by 2 inches. Mr. Shattock examined this and reported: "Though rich in cells it is everywhere undergoing fibrification, and I should class it as an œdematous fibroid; if classed with sarcoma, it would be one of those on the borderland between sarcoma and fibroma, and of the clinically non-malignant form." On February 11th, 1898, patient was curetted in Adelaide on account of hæmorrhage, but did not remain in the hospital; she said that three small growths were removed. Since this time patient had been losing for the most part continuously; sometimes a week would intervene without loss, and less frequently a fortnight. The amount would be increased, and clots passed at the time when she should have been unwell. She has often had to lay up for several days on this account, and has had considerable pain at times in the lower abdomen and back. Three months ago the patient came up and was examined. The cervix was found sufficiently patulous to admit the finger, and the interior of the uterus was found occupied by several soft polypoid growths. Vaginal hysterectomy was advised owing to rapidly recurrent nature of the growths, and patient came in with that object.

Patient was somewhat anæmic on admission, owing to almost continuous loss for the last $2\frac{1}{2}$ years. No signs of disease were found in the heart, lungs, or abdomen. On vaginal examination the uterus was found slightly anteverted, the body normally moveable and slightly enlarged. The sound passed the normal distance, but returned with a distinctly foetid odour. Nothing abnormal was felt in the posterior fornix or broad ligaments. There was no loss during stay in hospital.

On October 12th the uterus was removed by vaginal hysterectomy. On examining the uterus there was a slight bulging on the anterior wall, giving a sensation of semi-fluctuation on palpation. On laying the uterus open along its posterior wall, a sessile polyp was seen on the anterior wall, corresponding in position with the tumour visible from the exterior. The polyp was roughly pear-shaped, with the stalk upwards, and measured $1\frac{1}{4}$ inches by $\frac{3}{4}$ inch. It was of soft consistence, with a few hard nodules in its substance. On incising the tumour through the anterior wall, about one third of uterine wall separated it from the peritoneum, and the tumour itself showed the structure of an œdematous fibroid. A little above the level of the internal os were four mucous polypi about the size of melon seeds. There were also one or two projections of mucous membrane about as large as millet seeds, suggesting early mucous polypi.

Cavity of uterus measured $2\frac{3}{4}$ inches. Thickness of wall $\frac{3}{4}$ inch.

Microscopical examination of the polyp in the anterior wall showed the structure of the ordinary myoma. Patient made a rapid and uneventful recovery.

5. SLOUGHING SUBMUCOUS FIBRO-MYOMA OF UTERUS; PAN-HYSTERECTOMY; DEATH.

E. F—, æt. 67, admitted October 8th, died November 3rd, 1898. Patient was never married; menopause occurred twenty years ago.

Three months before admission patient noticed a discharge of blood *per vaginam*; this remained slight for about one month, and then became more profuse, and continued so up to the time of admission. Clots were passed on several occasions, but no discharge apart from the blood was noticed, and no offensive smell. There had been some pain in the lower part of the abdomen before the hæmorrhage began, and this also had latterly become more constant and severe. She had lost flesh and strength since the onset of symptoms.

On admission she was thin and anæmic; a rounded mass could be felt in the abdomen rising above the symphysis pubis in the middle line to within $2\frac{1}{2}$ inches of the umbilicus; there were no signs of fluid in the abdomen, and the liver edge could not be felt. Heart and lungs normal; pulse 100; urine normal; temperature normal.

Per vaginam: the anterior vaginal wall was depressed by a solid, firm, smooth tumour the size of a seventh month fœtal head. The upper limit could be felt on deep palpation about 3 inches below the umbilicus. The tumour extended nearly to the right and left lateral walls. The cervix projected slightly downwards and backwards at the back of the vagina, and all of the tumour felt *per vaginam* was in front of the cervix. The uterine sound passed to the right of the tumour and behind it for $5\frac{1}{2}$ inches.

After the examination a tupelo tent was put in the cervical canal with a view to exploration of the interior of the uterus. The tent was withdrawn on the following day and the cervical canal dilated under anæsthesia sufficiently to admit the index finger. The cervical canal was found to be about $1\frac{1}{2}$ inches long, with smooth walls. On passing the finger into the uterine cavity a hard, irregular tumour was felt projecting into it from the anterior and fundal walls of the uterus. The mucous membrane of the posterior wall was quite smooth, as also was that contiguous to the tumour, there being no evidence of infiltration of the tissues beyond the margin of the tumour. The growth bled readily during examination. After examination a uterine douche was given and a considerable quantity of clot washed out of the uterus. The case was considered to be carcinoma of the body of the uterus, and as the uterus was too large to be removed entire by the vagina, the combined vaginal and abdominal operation was decided on.

Operation (October 19th).—The patient was first placed in lithotomy position and cervical canal plugged with gauze. The anterior vaginal fornix was then divided and the bladder separated from the uterus. The incision was next carried round the lateral fornices to the posterior fornix, and the pouch of Douglas opened and plugged with a marine sponge. Silk ligatures were passed through the lower part of both broad ligaments and the uterus divided from the ligatured portion. The uterine arteries were secured on

both sides in this way. The patient was then put in the dorsal position, and the abdomen opened in the middle line between the pubes and umbilicus. The enlarged uterus was drawn up to the wound, and the upper portion of both broad ligaments ligatured and divided so as to include the ovary and entire Fallopian tube. The uterus was completely freed by dividing its remaining attachments and removed through the abdominal wound; the incision was then closed. A gauze plug was left in the vagina.

The uterus removed measured $5\frac{1}{2}$ inches in length, $4\frac{3}{4}$ inches across its broadest part, and $2\frac{3}{4}$ inches between the origin of the Fallopian tubes. The uterus was opened along its posterior wall and its whole cavity found filled up with a dark greenish, very offensive mass growing from its anterior wall. The whole surface projecting into the uterus was soft and broken down, but round the edges, especially on the right, there was some firm fibro-myomatous tissue remaining. The tumour measured $3\frac{1}{2}$ inches long by 3 inches broad. There was no infiltration of the uterine wall around the tumour. The left posterior uterine wall was full of hard nodules, some of which projected on the surface; on section they showed the structure of fibro-myomatous tissue. The uterine mucosa appeared normal; tubes healthy; ovaries small and atrophic, but not diseased. Microscopic examination of a portion of the tumour was reported on as fibro-myoma.

For first few days after operation patient was troubled with cough, with considerable mucus rattling in the chest. Pulse 120 to 130; temperature varied between 99° and 100° . Slight trace of albumen in the urine. On October 24th there was a considerable amount of brownish purulent discharge from the lower end of the abdominal wound. Patient had incontinence of urine. On October 27th the stitches were removed, and a few hours later, during a fit of coughing, the wound gave way and omentum protruded; this was returned and the wound resutured. From this time onward patient's condition gradually became more and more feeble; a parotid bubo appeared on the right side on October 28th; diarrhoea set in, and patient gradually sank and died on November 3rd, 15 days after operation.

Post-mortem.—In the lower half of the abdomen the coils of intestine were all adherent, the omentum covering them being also adherent to the underlying coils, and to the parietal peritoneum along the line of incision. The adhesions were all fairly tough, and required some force to separate. On separating the intestines and working down towards the pelvis, tiny loculated collections of pus lying between adjacent coils were from time to time opened up. It could be seen afterwards that these small abscesses were all in linear series, the suppuration working its way upwards from the pelvis, where there was rather a larger collection of pus, though this also was inconsiderable in amount. The small abscesses lay each in a shell of pyogenic membrane. No large collection of pus was anywhere present. The coils of intestine showed wide-spread inflammation and adhesion below the umbilicus, spreading out on the right side to below the iliac fossa. On removing the intestines where they were adherent to the roof of the vagina, the tissues shutting off the vagina were easily torn through. The omentum at its right lower margin was much thickened and hyperæmic. In the upper

half of the abdomen the peritoneum was healthy. Kidneys showed granular change; patchy atheroma of aorta; atheroma of aortic cusp of mitral valve. Cardiac valves competent and muscle good; both ventricles hypertrophied. Lungs emphysematous and œdematous. Left visceral pleura completely ensheathed with a coat of thick yellow lymph. Liver slightly fatty.

REPORT OF

THE OBSTETRICAL DEPARTMENT

FOR 1898.

BY WALTER W. H. TATE, M.D., M.R.C.P.,
ASSISTANT OBSTETRIC PHYSICIAN TO THE HOSPITAL.

THE JUNIOR OBSTETRIC HOUSE PHYSICIANS FOR THE YEAR WERE MESSRS.
S. D. TURNER, H. T. M. ALFORD, L. GILBERT, J. F. MCCLEAN, AND R. H.
BELL.

I HAVE to express my thanks to Mr. S. H. Belfrage for kindly preparing all the statistical figures for this report.

The number of women attended in the maternity department from January 1st, 1898, to December 31st, 1898, amounted to 2314. Out of the total number 34 resulted in twin births. There were 32 cases of abortion.

The various presentations that were met with are shown in the following classification :

	Among the single births.	Among the twin births.	Total.
Vertex	1509	43	1552
Vertex with prolapsed arm . . .	4	1	5
Breech	55	13	68
Superior extremities, including shoulder	3	3	6
Inferior extremities	8	1	9
Face and brow	2	—	2
Funis	3	—	3
Not stated (including "born be- fore arrival")	664	7	671
	<hr/> 2248	<hr/> 68	<hr/> 2316
Abortions			32
			<hr/> 2348

FORCEPS were used to complete delivery in 83 cases. In 5 they were employed on account of contracted pelvis, in 2 owing to obstruction produced by fibroid tumour of uterus, in 1 for accidental hæmorrhage, in 1 for bicornuate uterus, and in the remaining 74 cases for delayed labour.

Thirteen cases of PLACENTA PRÆVIA were met with during the year. It is satisfactory to be able to report that all the mothers recovered. In 1 of the cases twins were present, and of the 14 children born 6 were stillborn and 8 were born alive. A complete list is appended :

No.	Age of mother.	Confinement.	Sex of child.	Presentation.	Treatment.	Result to child.	Position of placenta.
646	26	5th	F.	Shoulder	Not stated	L.	Marginal.
719	38	8th	F.	Vertex	"	S.	"
842	40	15th	M.	"	"	S.	Complete.
872	32	9th	M.	Back	Version	S.	Marginal.
909	33	7th	M.	Vertex and funis	"	L.	Not stated.
1078	28	4th	F.	Vertex	None	L.	Marginal.
1395	39	11th	M.	"	Not stated	L.	Not stated.
1774	31	4th	{ M. F.	{ ? Presentations; prolapse of funis	De Ribes' bag, version	1st L., 2nd S.	} Marginal.
1810	36	8th	M.	Vertex	"	S.	"
1862	34	17th	M.	?	"	S.	Not stated.
2143	28	4th	M.	Footling	Not stated	L.	Marginal.
3391	33	8th	M.	Breech	"	L.	"
757	28	3rd	M.	Vertex	De Ribes' bag, version	L.	Not stated.

VERSION was performed on 13 occasions—

- 4 cases of placenta prævia.
- 6 „ of transverse presentations.
- 1 case of contracted pelvis.
- 1 „ of prolapse of the cord.
- 1 „ (reason not stated).

ACCIDENTAL HÆMORRHAGE occurred as a complication in 6 cases. Five of them were vertex presentations, the remaining case presenting by the breech. One case was treated by rupturing the membranes, 3 cases by the introduction of de Ribes' bag, followed in 2 cases by delivery with forceps. One case was treated by forceps alone, and in the sixth case the treatment adopted was not stated.

BREECH PRESENTATIONS occurred in 68 cases, giving a proportion of 1 in 34.05 cases. Eight cases of stillbirths were recorded, representing a mortality of 11.76 per cent.

Three maternal deaths have occurred during the year. A brief report of each is appended.

No. 1258. Mrs. C—, æt. 29. Fifth confinement. On 15th August, 1898, while washing, patient had a sudden attack of pain in the abdomen with faintness. She went to bed, but got up again the next day, though there was continuous aching pain in the abdomen. The pain increased in severity during the following days, and on August 20th blood began to ooze from the vagina. At 5.30 p.m. she was seen by Mr. Gilbert, who found her pale and restless, with a pulse of 126. The uterus was large, tense, and tender. No foetal heart could be heard; the vertex was presenting. Watery brownish discharge was trickling from the vagina. Diameter of os an inch and a half; membranes ruptured. No labour pains. De Ribes' bag was at once introduced, and Ext. Ergot. Liq., one drachm, administered. At 10.45 p.m. the os was three inches in diameter, pulse 150, breathing rapid and shallow, skin cold and clammy. Further dilatation hastened by traction on bag, and child delivered rapidly by forceps. The child was stillborn, and had been dead some days. About two and a half pints of blood came away just before and during the birth of the child. The uterus contracted well, but the patient was almost unconscious and pulseless after delivery of child. In spite of hypodermic injections of strychnine and ether, and brandy by the mouth, she died at 11.50 p.m. (The infusion apparatus did not arrive in time to be used.)

No. 1886. Mrs. M—, æt. 27. Fourth confinement. In this case the obstetric clerk was not summoned to the case till after the birth of the child. On his arrival he found the patient unconscious and in a desperate condition. Extensive post-partum hæmorrhage had occurred, and the patient died one hour and a half later. At the autopsy the patient was found to have contracted granular kidney and hypertrophy of the heart, which weighed 22 ounces.

No. 3595. Mrs. O—, æt. 32. The child was delivered without difficulty, but a considerable amount of blood was

lost after delivery. Mr. Alford was summoned to the case at 12.30 a.m. on March 27th, 1898, as the obstetric clerk was unable to express the placenta. On his arrival patient had a rapid pulse, was blanched and restless. As it was impossible to express the placenta the hand was passed into the uterus, and the greater part of the placenta was found to be densely adherent to the uterine wall. The process of separation occupied three quarters of an hour, and was accomplished with great difficulty. A copious injection of creolin was given after the placenta had been removed. There was no more hæmorrhage, and on leaving the patient two hours later her general condition was fairly good. Patient's progress was satisfactory till sixty hours after labour, when the temperature rose to 104.6° with pulse 128. Lochia red and offensive. After an intra-uterine douche of creolin solution, the temperature fell to 100° , but in a few hours rose again to 105° . On the following day (March 30th), as the temperature was still 104° and the lochia offensive, the uterus was explored by Mr. Alford under an anæsthetic, and a good deal of decomposing placental tissue removed. This was followed by a fall of temperature to 100.4° and pulse 96 six hours after the operation. This improvement was only temporary, and on the following day the lochia was again offensive, and at 4.30 p.m. temperature rose to 105.4° . The temperature varied between 100.6° and 105° during the next two days, the patient's condition at times being very serious, but showing marked improvement when the fever was less. On April 2nd the uterus was again explored under chloroform as the lochia continued to be offensive. Another piece of decomposing placental tissue was removed. No improvement followed this, and on the following morning 10 c.c. of antistreptococcic serum was injected. The temperature fell to 100.6° at 12 noon and remained between 99.8° and 100.6° all day; the condition of the patient seemed distinctly better. The next morning, however, April 4th, the temperature again rose, and a second injection of the serum was given at noon, but unfortunately this was not followed by the same good result. The patient gradually got more collapsed during the day, and died at 5 a.m. on April 5th.

CHILDREN BORN.—During the year the number of children born was 2316, including 34 cases of twin births. The number of stillbirths was 48, representing a percentage of 2. The circumstances under which these stillbirths occurred are shown in the following list :

Natural labours	10
Twin births	2
Premature labours	19
Placenta prævia	6
Breech presentations	8
Contracted pelvis	1
Deformities of fœtus	2
	<hr/> 48

The following table gives particulars of the 34 cases of twin births :

No. in Maternity Book.	Age of mother.	No. of confinement.	Date of birth.	Sex.		Presentation.	
				1st child.	2nd child.	1st child.	2nd child.
2774	31	2nd	Jan. 18	M.	F.	Vertex	Vertex.
3003	27	4th	„ 19	M.	M.	„	Breech.
3054	32	5th	„ 14	M.	F.	Breech	Vertex.
3584	37	6th	Feb. 13	M.	F.	„	„
2	30	5th	„ 28	F.	F.	Vertex	Breech.
35	33	1st	March 7	M.	F.	„	Vertex.
85	29	4th	April 14	F.	F.	„	Breech.
138	22	1st	March 31	M.	F.	„	Vertex.
159	39	12th	April 11	M.	M.	„	Shoulder.
174	34	6th	May 4	M.	F.	?	?
205	22	2nd	April 22	F.	F.	Vertex	Vertex.
258	41	12th	„ 2	M.	M.	„	„
290	31	5th	„ 7	M.	F.	Vertex and hand	Breech.
322	21	2nd	May 14	F.	F.	Vertex	Shoulder.
546	38	8th	April 15	M.	F.	Footling	Breech.
593	26	3rd	May 19	M.	M.	Vertex	Vertex.
675	40	7th	„ 6	M.	F.	„	„
864	24	5th	July 2	M.	F.	„	„
940	30	4th	June 20	M.	F.	Breech	„
1124	32	4th	Aug. 27	F.	F.	„	Trans- verse.
1189	25	1st	July 19	M.	M.	Vertex	Vertex.
1331	31	2nd	Aug. 18	M.	M.	„	„
1434	32	7th	Oct. 14	F.	F.	„	„

No. in Maternity Book.	Age of mother.	No. of confinement.	Date of birth.	Sex.		Presentation.	
				1st child.	2nd child.	1st child.	2nd child.
1564	26	2nd	Aug. 17	M.	F.	?	Vertex.
1695	20	3rd	Oct. 5	F.	F.	Vertex	„
1700	26	5th	„ 9	M.	F.	„	Breech.
1774	31	4th	„ 20	F.	M.	? (placenta prævia)	?
1780	34	8th	Nov. 9	F.	F.	Vertex	Breech.
1812	18	1st	Oct. 28	M.	F.	Breech	Vertex.
1921	31	4th	Nov. 30	M.	M.	?	„
2013	35	9th	„ 13	M.	F.	Vertex	„
2120	31	1st	Dec. 18	M.	F.	„	„
2306	28	2nd	Nov. 14	M.	M.	„	Breech.
2599	34	5th	Dec. 24	M.	M.	„	Vertex.

STATISTICAL REPORT

OF

THE OPHTHALMIC DEPARTMENT

FOR THE YEAR 1898.

BY S. N. BABINGTON, M.R.C.S., L.R.C.P.,
LATE OPHTHALMIC HOUSE SURGEON.

DURING the year there were 3889 new out-patients (exclusive of renewed letters), and 244 admissions relating to 217 in-patients; 231 major operations were performed. Total attendances in out-patient department 9732.

General Statement of Ophthalmic Patients.

Number of beds in Ophthalmic Ward (including small ward)	...	...	25
Number of patients in ward, Jan. 1st, 1898	...	...	18
" " " Dec. 31st, 1898	...	...	12
" of discharges or deaths in 1898	...	...	250
	Male.	Female.	Total.
Discharged cured	85	60	145
" relieved	39	55	94
" unrelieved or for other causes	9	1	10
Died	0	1	1
	133	117	250

(Infectious cases, of which there was one during the year, are treated in No. 8 block. This case is included in this report.)

The death recorded above was due to marasmus. The child died on the same night that it was admitted.

Table of In-patients.

Cataract, lamellar	3	Wound of lid	4
„ congenital	1	Traumatic mydriasis	1
„ traumatic	2	Staphyloma of cornea	1
„ senile	36	Shrunk globe	4
„ ? cause	3	Adherent leucoma	1
Membrane after extraction	13	Ectropion	2
Contusion of eye	1	Frontal sinus empyema	2
Inflamed blind eye	5	Gonorrhoeal ophthalmia	1
Wound of globe	27	Trachoma	5
Iritis, rheumatic	8	Foreign body in orbit	1
„ nodular	1	Ptosis	1
„ syphilitic	1	Dermoid tumour	2
Ulcers of cornea	14	High myopia	10
Orbital abscess	3	Ruptured globe	1
Tarsitis	1	Irido-cyclitis	2
Occlusion of pupil	2	Burn of cornea and conjunctiva	1
Foreign body	2	Sclero-keratitis	2
Episcleritis (gummatous)	1	Anterior synechia	1
Sarcoma of orbit	1	Pustular conjunctivitis	1
Keratoconus	1	Tubercular nodule in choroid	1
Hypopyon keratitis	14	Strabismus, divergent	1
Interstitial keratitis	2	„ convergent	3
Post-herpetic neuralgia	1	Gummatous osteitis of skull	1
Glaucoma, acute	3	Necrosis of frontal bone	1
„ subacute	3	Bitemporal hemianopsia	1
„ chronic	1	Lacrymal abscess	4
„ secondary	2	„ mucocele	4
Detachment of retina	5		
			217

The following is a list of the chief Operations performed :

Excision :

For injury	22
For disease	15
Extraction of hard cataract	31
Operations for treatment of 9 soft cataracts	17
Extraction, as for hard	1
Needling of congenital	5
„ of monocular	2
Curette evacuation of monocular	2
Paracentesis of a. c.	1
Needling and curette evacuation of congenital	2
Needling of traumatic	1
Curette evacuation of traumatic	2
Curette evacuation of congenital	1
Discission of membrane after extraction of senile cataract	13
Discission of membrane after soft cataract	2
Subcutaneous division of scar in lid	1
For lacrymal obstruction	10
Iridectomy	33
For acute and subacute glaucoma	5
For chronic glaucoma	1
For secondary glaucoma	1
Preliminary to extraction	7

Iridectomy (*continued*).

For recurrent iritis	2
For prolapsed iris	9
For adherent leucoma	3
For artificial pupil	5
Needling for myopia	16
Curette evacuation after needling for myopia	10
Sclero-puncture	4
Saemisch's section	3
Tenotomy of internal rectus	5
„ of external rectus	2
Advancement of internal rectus	1
„ of external rectus	3
Plastic operation on lids	9
For ptosis	1
Excision of dermoid cyst	2
Division of anterior synechia	2
Extirpation of lacrymal sac	1
For orbital cellulitis	3
Removal of foreign body from orbit	1
Paracentesis of anterior chamber	9
Peritomy	1
Cautery to conjunctiva	1
„ to cornea	3
„ to dermoid cyst	1
Exploration of orbit	4
Growths in and about orbit	1
Excision of conjunctival fornix	3
Tarsorrhaphy	1

TABLE I.—*Extractions of Hard Cataract.*—

Page in Bk. '98.	Report No.	Name and date.	Sex.	Age.	Anæsthetic.	Operation.
6	1	C. H. Jan. 20th	M.	51	Cocain	Right; extraction upwards with iridec- tomy. Lens came away easily; a good deal of soft lens matter was extruded afterwards
18	2	J. M. Feb. 10th	M.	62	„	Left; extraction upwards with iridectomy. Lens loose and moved under cystitome, but came away without much difficulty
33	3	J. D. March 17th	M.	81	„	Right; section upwards, rather short. Con- junctival flap. Iridectomy. Lens bulky, came away slowly and reluctantly
56	4	G. C. May 12th	M.	75	Cocain and chlo- roform	Left; incision completed with difficulty. On attempting iridectomy patient jumped, and a large piece of iris was pulled out, free bleeding occurring. Chloroform was then administered and lens removed after iris had been cut off. Lens hard and friable at margins
60	5	G. M. May 19th	M.	61	Cocain	Right; upward section. Iridectomy. Lens hard, and came out fairly clear. Vitreous tended to present, but none escaped
65	6	J. A. May 26th	F.	49	„	Right; extraction upwards with iridec- tomy; good conjunctival flap. Lens came away easily; some soft lens matter afterwards extruded
83	7	E. A. B. June 30th	F.	57	„	Right; extraction upwards with iridec- tomy. Lens not easily extruded, but pupil left fairly black. Cornea flaccid

Mr. Lawford's Cases (18).

Progress of case.	Secondary operation.	Result.
Favourable. Tension remained low for some time after operation	None	Feb. 11th, 1898— $\begin{array}{r} + 10 \text{ Ds.} \\ \text{R.V. c.} + 2 \text{ Dc. ax.} = \frac{6}{36} \\ + 14 \text{ Ds.} \\ \text{c.} + 2 \text{ Dc. ax.} = 12 \text{ J.} \end{array}$ Patient not seen again.
Favourable	None	April 5th, 1898— $\begin{array}{r} + 12 \text{ Ds.} \\ \text{L.V. c.} + 2 \text{ Dc. ax.} = \frac{6}{12} \\ + 15 \text{ Ds.} \\ \text{c.} + 2 \text{ Dc. ax.} = 1 \text{ J. fairly.} \end{array}$
Hyoscine $\frac{1}{4}\%$ and cocain 1% aa was mydriatic used; this gave rise to irritation of lids after six days. Progress of case otherwise favourable	None	May 13th, 1898— $\begin{array}{r} + 10 \text{ Ds.} \\ \text{R.V. c.} + 1\cdot5 \text{ Dc. ax.} = \frac{6}{9} \text{ partly.} \\ + 14 \text{ Ds.} \\ + 1\cdot5 \text{ Dc. ax.} = 1 \text{ J.} \end{array}$
Favourable	None	June 10th, 1898— $\begin{array}{r} \text{L.V. c.} + 10 \text{ Ds.} = \frac{6}{18} \text{ fully.} \\ + 15 \text{ Ds.} = 6 \text{ J.} \end{array}$
There was free hæmorrhage into a. c. after operation, due to constant coughing. There was subsequent iritis, and pupil became updrawn	Sept. 1st, 1898— Right iridectomy down and out for artificial pupil. Nov. 17th, 1898— Right needling	R.V. c. + 10 Ds.—hand movements. ? Counting fingers at 0·5 m.
Favourable	—	Jan. 26th, 1899— $\begin{array}{r} \text{R.V. c.} + 13 \text{ Ds.} = \frac{6}{24} (2). \\ + 18 \text{ Ds.} = 8 \text{ J. words.} \end{array}$ Fairly dense fenestrated membrane in pupil.
Favourable	None	Oct. 21st, 1898— $\begin{array}{r} + 16 \text{ Ds.} \\ \text{R.V. c.} + 1\cdot5 \text{ Dc. ax.} = \frac{6}{12} (2). \\ + 18 \text{ Ds.} \\ + 1\cdot5 \text{ Dc. ax.} = 6 \text{ J.} \end{array}$

Page in Bk. '98.	Report No.	Name and date.	Sex.	Age.	Anæ- sthetic.	Operation.
104	8	H. R. Sept. 8th	M.	66	Cocain	Right; extraction upwards with iridec- tomy. Lens, dark amber colour, came away readily and quite clean
85	9	G. M. Sept. 22nd	F.	67	„	Right; extraction upwards with iridec- tomy. Conjunctival flap at ends of in- cision not in central part. Lens came away easily. Much soft cortex extruded by pressure
111	10	C. G. Oct. 6th	F.	67	„	Right; extraction upwards. Iridectomy ragged, partly from patient's movements and partly from imperfection of scissors. Lens came away easily and fairly com- plete. Free hæmorrhage
93	11	A. S. Oct. 6th	M.	67	„	Left; extraction upwards; small conjunc- tival flap. Lens came away easily Preliminary iridectomy August 11th, 1898
112	12	J. B. Oct. 13th	F.	60	„	Left; extraction with iridectomy upwards; iridectomy small. Lens sticky; nucleus came away, leaving a good deal of soft cortex; subsequently extruded
117	13	M. A. Oct. 20th	F.	74	„	Right; extraction upwards with iridec- tomy; good conjunctival flap. Free hæmorrhage on cutting iris. Lens came away easily; quantity of soft cortex re- moved by digital manipulation
120	14	W. T. Oct. 27th	M.	65	„	Left; extraction upwards with iridectomy; large conjunctival flap. Patient jerked his head and tore iris, but iridectomy was subsequently done. Lens came away easily

Progress of case.	Secondary operation.	Result.
Favourable	None	Nov. 18th, 1898— + 11 Ds. R.V. c. $\frac{+ 1 \text{ Dc. ax.} -}{+ 16 \text{ Ds.}} = \frac{6}{1\frac{1}{2}}$ (1). $\frac{+ 1 \text{ Dc. ax.} -}{+ 16 \text{ Ds.}} = 6 \text{ J. badly.}$
Slight iritis with posterior synechiæ. Pupil did not dilate well. There was chronic dacryo-cystitis, which quieted down before operation, but gave some trouble afterwards	None	Nov. 18th, 1898— R.V. c. + 11 Ds. = $\frac{6}{1\frac{1}{2}}$. + 15 Ds. = 1 J.
Favourable	None	Nov. 18th, 1898— R.V. c. + 10 Ds. = $\frac{6}{1\frac{1}{2}}$ (2). + 15 Ds. + 1 Dc. ax. — = 6 J.
Patient has glycosuria. Five days after operation there was slight hæmorrhage from iris. Eye afterwards progressed slowly but favourably. Broad posterior synechia at lower and outer part	Jan. 5th, 1899— Left needling; good gap. This was followed by persistent increase of tension	Nov. 8th, 1898— + 10 Ds. L.V. c. $\frac{+ 1 \text{ Dc. ax.} -}{+ 14 \text{ Ds.}} = \frac{6}{3\frac{1}{2}}$. + 1 Dc. ax. — = 14 J. badly. Thin cobweb-like membrane occupying pupil.
Iritis with development of posterior synechiæ. Pupil dilated badly, and mostly in a direction downwards and outwards. Atropine irritation, which subsided under hyoscine and cocain	None	Jan. 6th, 1899— L.V. c. + 15 D. = $\frac{6}{3\frac{1}{2}}$. + 20 D. = 16 J.
Favourable	None	Dec. 20th, 1898 — + 11 Ds. R.V. c. $\frac{+ 1 \text{ Dc. ax.} -}{+ 15 \text{ Ds.}} = \frac{6}{9}$ partly. + 1 Dc. ax. — = 1 J.
Favourable	None	Nov. 25th, 1898— + 9 Ds. L.V. c. $\frac{+ 0\cdot75 \text{ Dc. ax.} -}{+ 14 \text{ Ds.}} = \frac{6}{1\frac{1}{2}}$. + 0\cdot75 Dc. ax. — = 1 J.

Page in Bk. '98.	Report No.	Name and date.	Sex.	Age.	Anæsthetic.	Operation.
120 <i>a</i>	15	A. P. Oct. 27th	F.	60	Cocain	Left; extraction with iridectomy upwards. Good coloboma. Lens came away easily. Free hæmorrhage
124	16	T. M. Oct. 29th	M.	76	„	Left; extraction with iridectomy upwards. Lens came away easily, some soft matter being afterwards extruded
131	17	M. T. Nov. 17th	F.	60	„	Right; extraction with iridectomy upwards. Flap corneal at centre, conjunctival at margins. Lens was hard, and came away easily. Tag of capsule came out with lens and was cut off
133	18	E. D. Dec. 1st	F.	74	„	Left; extraction of cataract upwards; good conjunctival flap. Iridectomy. Lens came away easily and clean

Mr. Fisher's

8	19	M. T. March 9th	F.	72	Cocain	Right; wide incision; good conjunctival flap. Iridectomy up. Some difficulty was found at first in expressing the lens, but it eventually came away satisfactorily
10	20	E. F. March 23rd	F.	33	Ether	Right; extraction upwards with iridectomy. Lens was partially hooked out with cystitome, remainder was satisfactorily expressed. Vitreous presented, none escaped
13	21	R. B. March 30th	M.	56	Cocain	Right. Iris fell over knife, and iridectomy was completed with incision. Lens came away without difficulty

Progress of case.	Secondary operation.	Result.
Glycosuria. Pupil dilated badly; temporal border of iris ragged and irregular, and bound down by posterior synechiæ	None	Dec. 20th, 1898— $\text{L.V. c. } \frac{+ 11 \text{ Ds.}}{+ 2 \text{ Dc. ax.}} = \frac{6}{2\frac{1}{2}}.$ $\text{c. } + 18 \text{ Ds.} = 8 \text{ J.}$ Probably requires needling.
Favourable	—	March 3rd, 1899— $\text{L.V. c. } + 5\cdot5 \text{ Ds.} = \frac{6}{3\frac{5}{6}}.$ $\text{c. } + 11 \text{ Ds.} = 6 \text{ J.}$ Requires needling.
Favourable	None	Dec. 15th, 1898— $\text{R.V. c. } \frac{+ 8 \text{ Ds.}}{+ 1\cdot5 \text{ Dc. ax.}} = \frac{6}{1\frac{6}{8}} (3).$ $\text{c. } \frac{+ 11 \text{ Ds.}}{+ 1\cdot5 \text{ Dc. ax.}} = 4 \text{ J.}$ Well-defined myopic crescent. No changes in macular region.
Favourable	None	Jan. 13th, 1899— $\text{L.V. c. } + 10 \text{ Ds.} = \frac{6}{1\frac{1}{2}} (4).$ $+ 14 \text{ Ds.} = 8 \text{ J. badly.}$ Gap is in upper part of membrane. Patient very nervous.

Cases (12).

Favourable	May 19th, 1898— Needling of right with one cutting needle; good Δ gap	May 21st, 1898— $\text{R.V. c. } \frac{+ 12 \text{ Ds.}}{+ 2 \text{ Dc. ax.}} = \frac{6}{3\frac{6}{5}}.$ $\frac{+ 16 \text{ Ds.}}{+ 2 \text{ Dc. ax.}} = 10 \text{ J.}$
Favourable	Sept. 28th, 1898— Right needling; small clear gap	Nov. 16th, 1898— $\text{R.V. } + 12 \text{ Ds.} = \frac{6}{6\frac{1}{5}}.$ $+ 16 \text{ Ds.} = 16 \text{ J. badly.}$
Favourable	July 27th, 1898— Right needled, one cutting needle used	Aug. 1st, 1898— $\text{R.V. c. } \frac{+ 10 \text{ Ds.}}{+ 1\cdot5 \text{ Dc. ax.}} = \frac{6}{9} (4).$ $\frac{+ 14 \text{ Ds.}}{+ 1\cdot5 \text{ Dc. ax.}} \left/ \begin{array}{l} 30 \\ 30 \end{array} \right. = 1 \text{ J.}$

Page in Bk. '98.	Report No.	Name and date.	Sex.	Age.	Anæsthetic.	Operation.
30	22	E. L. June 15th	F.	68	Cocain	Right; extraction upwards with iridectomy. Lens came away easily, but a lot of soft lens matter was left behind, which was squeezed out, leaving pupil practically black
31	23	S. P. June 22nd	F.	63	„	Left; extraction upwards with iridectomy. Lens came away easily. Some rather dense capsule left behind, which occupied centre of pupillary area. July 13th, 1898—Right; extraction upwards with iridectomy. Lens came away with some difficulty. Pupil fairly black
33	24	H. F. W. June 29th	M.	60	„	Left; extraction upwards with iridectomy. Incision rather short and had to be enlarged. On attempting expression some vitreous presented. Lens refused to come forward, and had to be removed with a spoon. Considerable quantity of vitreous followed lens
35	25	M. S. July 27th	M.	69	„	Left; extraction upwards with iridectomy. Good conjunctival flap. Small bead of vitreous presented before lens. Cystitome had to be re-introduced. Lens was removed without loss of vitreous
36	26	L. G. July 27th	F.	68	„	Right; extraction upwards with iridectomy. Lens came away easily, leaving pupil black
40	27	J. G. Sept. 7th	F.	70	„	Left; incision upwards, entirely corneal and rather oblique. An attempt was made to remove lens without iridectomy, but during section iris fell over knife. Large iridectomy upwards. Lens came away easily; a good deal of soft lens matter removed by digital manipulation

Progress of case.	Secondary operation.	Result.
Atropine irritation. Hyoscine and cocain drops substituted with good result	Sept. 28th, 1898— Right needled with one cutting needle; good wide gap at lower part of pupil. T. + 2 the following day. Sept. 30th, 1898— Paracentesis of anterior chamber with good result. Nov. 9th, 1898— Paracentesis of anterior chamber	Oct. 24th, 1898— R.V. c. + 10 Ds. = $\frac{6}{18}$. + 15 Ds. c. + 1 Dc. ax. — = 1 J. slowly.
Favourable	None	Sept. 26th, 1898— Returned from Union with ciliary congestion in each. Left: good red reflex from upper part of pupil. Right: iris much updrawn, and no red reflex obtainable. Tension normal in each. Has not followed out treatment.
Favourable	None	Sept. 14th, 1898— L.V. c. + 10 Ds. = $\frac{6}{18}$. c. + 15 Ds. = 6 J. slowly. Some membrane in pupil.
Favourable	Jan. 4th, 1899— Left needled, one cutting needle used; good gap in membrane	Jan. 18th, 1899— L.V. c. + 3.5 Ds. + 1.0 Dc. ax. — = $\frac{6}{18}$ (2). + 8.0 Ds. + 1.0 Dc. ax. — = 4 J. fairly. Fundus shows myopic change. Floating vitreous opacities.
Some iritis. Hyphæma noticed 8 days after operation, due probably to patient rubbing the eye. Eye eventually quieted down	Oct. 19th, 1898— Right needled, one cutting needle used; good gap	Oct. 24th, 1898— R.V. c. + 12 Ds. = $\frac{6}{12}$ partly. + 16 Ds. = 1 J.
Wound broke down 6 days after operation and aqueous escaped. Progress subsequently favourable	None	Nov. 16th, 1898— L.V. c. + 13 Ds. = $\frac{6}{18}$ well. + 18 Ds. = 1 J. easily.

Page in Bk. '98.	Report No.	Name and date.	Sex.	Age.	Anæsthetic.	Operation.
46	28	F. B. Sept. 28th	M.	?	Cocain	Left. Previous iridectomy for glaucoma upwards in 1890. Incision upwards good conjunctival flap. Lens came away without much difficulty, but a very dense membrane was left behind; this was removed with smooth iris forceps. No vitreous escaped during the operation; but at its close patient began squeezing the lids, and a small portion of vitreous escaped
47	29	A. B. Oct. 19th	F.	73	„	Left; extraction upwards with iridectomy; small portion of iris removed. Lens came away easily
51	30	W. R. Nov. 30th	M.	67	„	Left; extraction upwards with iridectomy; good conjunctival flap. Large coloboma. Lens came away almost complete, and pupil was quite black

TABLE II.—*Soft Cataracts.*—

4	31	H. O. Jan. 13th	F.	17	Cocain	Left; needling with one needle. Lens hard and flaky, with portion almost calcareous in consistence. Some of the lens matter came well forward. ? Traumatic
49	32	A. B. April 14th	F.	8 mos.	Chloroform	Right; needle introduced through cornea, and nuclear part of lens brought forward into anterior chamber. Incision in cornea up and out, and lens matter removed, but with difficulty. Incision was enlarged and a small piece of iris removed
49	33	A. B. June 2nd	F.	9 mos.	„	Left; needle introduced; lens broken up a little. Incision in cornea outwards with keratome. Lens matter nearly all removed
110	34	M. E. S. Oct. 6th	F.	27	Cocain	Left; lens needled, chiefly in axial part. Lens matter protruded at once. Movable cataract. Operation for appearance

Progress of case.	Secondary operation.	Result.
Favourable	None	Oct. 27th, 1898— Patient left ward at own request, and has not been seen since.
Favourable	None	Jan. 11th, 1899— + 12 Ds. L.V. c. $\frac{+ 1.5 \text{ Dc. ax.} = \frac{6}{9} (2)}{+ 16 \text{ Ds.}}$ + 16 Ds. + 1.5 Dc. ax. = 1 J. well.
Favourable	None	Jan. 4th, 1899— L.V. c. + 10 Ds. = $\frac{6}{2.4} (1)$. + 15 Ds. = 4 J.

r. Lawford's Cases (6).

Favourable	Jan. 20th, 1898— Left paracentesis of anterior chamber. No lens matter came forward	Patient was not seen again after leaving the hospital.
is adherent to scar in cornea	Nov. 17th, 1898— Right iridectomy down and out	Good central gap.
Favourable	None	—
lens matter absorbed very slowly	Oct. 13th, 1898— Left incision with keratome down and out. Lens matter very sticky, but little could be removed, and that with difficulty	Patient left ward Nov. 9th, 1898, and has not been seen since.

Page in Bk. '98.	Report No.	Name and date.	Sex.	Age.	Anæsthetic.	Operation.
116	35	L. D. Oct. 20th	F.	30	Cocain	Right; needling with one needle. Small portion of lens matter came forward into anterior chamber. Monocular cataract. Operation for appearance
137	36	J. N. Dec. 8th	M.	15	„	Left; lens needled, chiefly in axial part. Lamellar cataract

Mr. Fisher's

4	37	M. E. Feb. 16th	F.	16	Cocain	Right; needled. The lens matter was freely torn with one needle. A good deal of the lens matter was found to have been already absorbed. Traumatic. For appearance
6	38	E. U. March 2nd	F.	8	Ether	Right; needled freely with one needle
6	39	E. U. June 22nd	F.	8	Ether cone	Left; freely needled with one needle

Progress of case.	Secondary operation.	Result.
Patient vomited the day after operation. Tension went up, and remained so until the afternoon, when two leeches were applied to right temple	Oct. 27th, 1898— Right curette evacuation	—
Lens very flaky and brittle. Portions of lens matter came forward into anterior chamber and broke off	None	Unfinished.
<i>Cases (3).</i>		
Patient vomited twice in the ward after operation	None	—
Favourable	March 9th, 1898— Right curette evacuation. June 15th— Right needled	July 13th, 1898— + 11 Ds. R.V. c. $\frac{+ 2 \text{ Dc. ax.}}{40} = \frac{6}{12}$. + 15 Ds. = 4 J.
Favourable	None	Nov. 8th, 1898— + 10 Ds. L.V. c. $\frac{+ 1 \text{ Dc. ax.}}{40} = \frac{6}{12} (2)$. + 14 Ds. c. $\frac{+ 1 \text{ Dc. ax.}}{40} = 6 \text{ J.}$

Analysis of Cataract Operations.

I. Extraction of hard cataract—31 cases. Mr. Lawford, Nos. 1 to 18; Mr. Fisher, 19 to 30. No. 23 had both lenses extracted, the right one three weeks after the left.

The section was made in all cases with a Graefe's knife along the sclero-corneal junction, and was in every instance upwards. Iridectomy was performed in all cases. In No. 11 a preliminary iridectomy had been performed. In No. 28 iridectomy had been performed previously for glaucoma.

In all cases atropine was used to the eye as soon as the anterior chamber had become securely sealed, usually about the third morning.

In Nos. 21 and 27 the iris became entangled in the Graefe's knife on making the section, and in the former instance the iridectomy was completed with the incision. In Nos. 4 and 14 the patients jerked their heads and tore the iris, but iridectomy was subsequently successfully performed in each case. In No. 10 the iridectomy was ragged, partly from patient's movements, partly from imperfect working of iris shears. Lens moved under cystitome in No. 2.

Vitreous escaped in Nos. 24 and 28, and presented without escaping in Nos. 5, 20, and 25. In No. 24 the lens was removed with Pagenstecher's spoon.

In No. 20 ether was the general anæsthetic used, and in No. 4 cocain was followed by chloroform. In all the rest a freshly prepared sterile 2 per cent. solution of hydrochlorate of cocain was used, being dropped into the conjunctival sac previous to the operation.

II. Operations for soft cataract—9 cases. Mr. Lawford, Nos. 31 to 36; Mr. Fisher, Nos. 37 to 39.

The lens was needled in Nos. 31, 34, 35, 36, 37, 38, and 39; in Nos. 34, 35, and 38 curette evacuation was subsequently performed. In curette evacuation the incision was made with a keratome at the periphery of the cornea. In

No. 31 an attempted curette evacuation failed. In Nos. 32 and 33 the needling and curette evacuation were performed at the same time.

In Nos. 32 and 33 chloroform was used, in Nos. 38 and 39 ether.

In the other cases a sterile 2 per cent. solution of hydrochlorate of cocain was used locally.

R E P O R T
OF THE
DEPARTMENT FOR DISEASES OF THE SKIN,
1898.

By HAROLD M. SCAPING, B.A. CANTAB., L.R.C.P., M.R.C.S.

TABLE I.—Statistical

DISEASES.	Jan.		Feb.		March.		April.	
	M.	F.	M.	F.	M.	F.	M.	F.
CLASS I.—HYPEREMIA.								
Erythema . . . . .	...	...	1	...	...	1	...	2
CLASS II.—EXUDATIONES.								
Urticaria . . . . .	...	1	1	2	...	...	...	1
Eczema	4	6	7	10	10	4	4	7
Furunculosis . . . . .	...	...	...	...	...	...	...	...
Impetigo contagiosa	1	...	...	...	...	...	...	1
Herpes simplex . . . . .	...	1	...	...	...	...	...	...
„ zoster . . . . .	...	1	...	...	...	1	...	...
Psoriasis	2	1	2	2	2	3	...	3
Pemphigus . . . . .	...	...	...	...	...	...	...	...
Lichen planus . . . . .	...	...	...	...	...	...	...	...
Dermatitis . . . . .	...	1	...	...	...	...	...	...
„ herpetiformis . . . . .	...	...	...	...	1	...	...	...
Prurigo . . . . .	...	1	...	...	...	...	...	...
CLASS III.—HEMORRHAGIÆ.								
Purpura simplex . . . . .	...	...	...	...	...	...	...	...
CLASS IV.—HYPERTROPHIÆ.								
Ichthyosis . . . . .	...	...	...	...	...	...	1	...
CLASS V.—ATROPHIÆ								
CLASS VI.—NEOPLASMATA.								
Lupus vulgaris	1	1	...	1	1	1	...	...
„ erythematosus . . . . .	...	...	...	1	...	...	...	...
Tuberculous ulceration . . . . .	...	...	...	...	...	...	...	...
Syphilis, primary . . . . .	...	...	...	...	...	...	...	...
„ secondary . . . . .	...	1	...	...	...	...	...	1
„ tertiary	1	...	...	1	...	...	...	...
„ congenital . . . . .	...	...	...	...	2	...	...	...

TABLE I.—

DISEASES.	Jan.		Feb.		March.		April.	
	M.	F.	M.	F.	M.	F.	M.	F.
CLASS VII.—NEUROSES.								
Pruritus . . . . .	...	...	...	...	...	...	...	...
Incipient Raynaud's disease . . . . .	...	...	...	...	...	...	...	...
CLASS VIII.—MORBI APPENDICUM.								
<i>Sebaceous glands.</i>								
Seborrhœa sicca . . . . .	...	...	...	1	...	2	1	...
„ oleosa . . . . .	...	...	...	...	...	1	...	...
Acne vulgaris . . . . .	...	...	1	...	1	...	1	1
„ indurata . . . . .	...	...	...	...	...	...	1	1
„ rosacea . . . . .	...	2	...	...	...	...	...	...
„ varioliformis . . . . .	...	...	...	...	...	...	...	...
<i>Hair-follicles.</i>								
Alopecia areata	2	2	1	2	3	2	4	1
Sycosis	1	...	...	...	...	...	1	...
Folliculitis . . . . .	...	...	...	...	...	...	...	...
Comedones . . . . .	...	...	...	...	...	...	...	...
<i>Sweat-glands.</i>								
Osmidrosis . . . . .	...	...	...	...	...	...	...	...
CLASS IX.—PARASITICÆ.								
A. <i>Vegetable.</i>								
Tinea circinata . . . . .	...	1	...	...	...	...	...	...
„ tonsurans	7	2	3	1	...	...	3	3
„ versicolor . . . . .	...	...	...	...	...	...	...	...
B. <i>Animal.</i>								
Scabies	1	...	1	5	6	...	2	1
Pediculi	4	...	1	2	1	1	2	...
ADDENDA.								
Copaiba rash	1	...	...	...	...	...	...	...

continued.

May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Totals.		Total.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...
...	1	2	...	1	1	1	...	1	2	...	...	...	...	1	2	7	9	16
2	...	1	...	1	...	1	...	2	1	...	1	...	...	1	1	8	4	12
2	1	1	...	4	...	...	3	1	1	...	...	1	1	2	1	14	8	22
...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	3	1	4
...	...	...	2	1	1	...	...	...	1	...	1	...	1	...	...	1	8	9
...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	1	1	2
4	2	2	...	3	2	3	...	3	4	3	...	2	2	6	2	36	19	55
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	1	2
...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	1	2	3
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1
...
...	2	1	1	1	1	...	...	1	2	...	...	1	...	...	1	4	8	12
1	2	1	1	2	...	3	...	4	...	1	1	1	2	2	1	28	13	41
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	1
2	...	1	...	1	2	1	...	1	...	1	...	1	...	...	2	18	10	28
...	3	...	...	3	1	...	...	4	2	2	3	2	2	5	4	24	18	42
...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
																318	304	622

TABLE II.—*Age in certain Diseases.*

		Under 1 year.	1-5.	5-10.	10-20.	20-30.	30-40.	40-50.	50-60.	60-70.	70-80.	80-90.
Eczema	M.	2	8	6	7	8	11	12	17	13	7	—
	F.	5	6	4	10	11	12	8	22	8	3	—
	Total	7	14	10	17	19	23	20	39	21	10	—
Impetigo	M.	1	1	3	3	1	—	—	—	—	—	—
	F.	—	—	1	—	—	—	—	—	—	—	—
	Total	1	1	4	3	1	—	—	—	—	—	—
Psoriasis	M.	—	—	1	7	8	2	4	3	1	—	—
	F.	—	2	2	8	9	2	3	7	—	—	—
	Total	—	2	3	15	17	4	7	10	1	—	—
Alopecia areata	M.	—	—	4	20	10	1	1	—	—	—	—
	F.	—	—	—	5	6	4	2	—	—	—	—
	Total	—	—	4	25	16	5	3	—	—	—	—
Tinea tonsurans	M.	—	4	10	11	—	—	1	—	—	—	—
	F.	—	1	5	5	—	—	—	—	—	—	—
	Total	—	5	15	16	—	—	1	—	—	—	—
Tinea circinata	M.	—	2	—	—	—	1	1	—	—	—	—
	F.	—	—	1	2	1	1	1	—	—	—	—
	Total	—	2	1	2	1	2	2	—	—	—	—

REPORT

OF THE

THROAT DEPARTMENT OF ST. THOMAS'S HOSPITAL IN 1898.

BY H. BETHAM ROBINSON, M.S., F.R.C.S.,
SURGEON IN CHARGE OF THE DEPARTMENT.

THE appended statistical tables have been a little modified from those in previous years. In addition short extracts of some of the more important cases treated will be found as an appendix.

For assistance in the compilation of the tables I am indebted to Mr. E. C. Bourdas, my clinical assistant.

Total Number of New Cases treated in the Special Department for Diseases of the Throat during the year 1898.

	Number of patients.		
	Male.	Female.	Total.
A. Affections of the mouth, fauces, and tonsils	130	143	273
B. Affections of the nose and accessory cavities	17	267	44
C. Affections of the naso-pharynx, pharynx, and œsophagus	114	113	227
D. Affections of the larynx	52	49	101
E. General and miscellaneous affections	25	37	62
F. Renewed letters	33	48	8
Totals	371	417	788

A. *Affections of the Mouth, Fauces, and Tonsils.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Stomatitis	1	3	4
Hypertrophy of papillæ of tongue	0	2	2
Syphilitic glossitis	1	1	2
Hypertrophy of lingual tonsil	3	5	8
Tuberculous ulceration of fauces	1	0	1
Mucous patches on tonsils and soft palate	2	4	6
Syphilitic ulceration and gummata of soft palate, &c.	4	6	10
Syphilitic atresia of fauces and soft palate	1	0	1
Uvulitis	0	1	1
Hypertrophy of uvula	3	0	3
Papilloma of uvula	1	1	2
Bifid uvula	0	1	1
Cleft palate	1	0	1
Post-diphtheritic paralysis of soft palate	2	1	3
Papilloma of supra-tonsillar fossa	1	0	1
Acute and subacute tonsillitis	64	59	123
Tonsillar and peritonsillar abscess	14	9	23
Chronic follicular tonsillitis	0	4	4
Hypertrophy of tonsils	29	45	74
Gumma of tonsil	0	1	1
Epithelioma of tonsil	2	0	2
Totals	130	143	273

B. *Affections of Nose and Accessory Cavities.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Acute and subacute rhinitis	2	1	3
Hypertrophic rhinitis	6	7	13
Polypoid hypertrophy over inferior turbinal	1	1	2
Ozæna and atrophic rhinitis	2	7	9
Deviated nasal septum	3	0	3
Perforation of nasal septum	0	3	3
Septal spurs	1	1	2
Tuberculous ulceration of nasal cavities	0	1	1
Mucous polypi	2	4	6
Empyema of antrum	0	2	2
Totals	17	27	44

c. *Affections of the Naso-pharynx, Pharynx, and Œsophagus.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Acute naso-pharyngitis	1	1	2
Acute and subacute pharyngitis	16	4	20
Septic pharyngitis	0	1	1
Chronic pharyngitis	7	5	12
Granular pharyngitis	15	20	35
Adenoid vegetations	41	40	81
Adenoid vegetations with hypertrophied tonsils	30	37	67
Syphilitic ulceration and gummata of pharynx	3	4	7
Pharyngomycosis leptothricia	0	1	1
Œsophageal carcinoma	1	0	1
Totals	114	113	227

D. *Affections of the Larynx.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Acute laryngitis	6	2	8
Subacute laryngitis	7	9	16
Chronic laryngitis	12	2	14
Laryngeal tuberculosis	10	14	24
Syphilis of the larynx—(i) Catarrh	3	2	5
(ii) Gummatous infiltration	1	0	1
(iii) Stenosis	1	1	2
(iv) Perichondritis	1	1	2
Benign growths—(i) Myxoma	1	0	1
(ii) Polypus ? nature	0	1	1
Pachydermia laryngis	1	0	1
Carcinoma of larynx	2	1	3
Laryngeal neurosis	2	4	6
Functional aphonia	1	11	12
Mechanical fixation of right vocal cord	2	0	2
Mechanical fixation of both cords	1	1	2
Abductor paralysis of left vocal cord	1	0	1
Totals	52	49	101

E. *General and Miscellaneous Affections.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Diphtheria	1	4	5
Syphilis	6	6	12
Enlarged glands	2	4	6
Aural	2	1	3
Goitre	0	1	1
Medical	4	12	16
<i>Nil</i> , trivial, &c.	7	8	15
Refused treatment	3	1	4
Totals	25	37	62

The following Operations were performed in the Out-patients' room under an Anæsthetic administered by Mr. Crouch.

Disease.	Number of patients.		
	Male.	Female.	Total.
Removal of adenoids	50	56	106
Removal of adenoids and tonsils	19	22	41
Removal of tonsils	3	10	13
Totals	72	88	160

A. *Affections of the Mouth, Fauces, and Tonsils.*

Warty thickening of tongue; syphilitic.—Mary M—, æt. 29, married. For six months complained of “lumps on the tongue.” Five children, of whom two died at 2½ years and one at 10 days. Five miscarriages. Three and a half months pregnant. Well-marked syphilitic history and scaly rash present. Plate-like thickening over an area size of two-shilling piece in the mid-line in front of the circum-

vallate papillæ, which bounded it behind; the papillæ themselves were very hypertrophied, and also those over the involved region. Painted with chromic acid solution, 10 per cent., and given iodide of potash 5 grs. t. d. s. Infiltration rapidly disappeared.

Papilloma of uvula.—George McI—, æt. 39, May 26th, 1898. Complained of irritation of the throat and expectoration for two years; cough. Hoarseness at times.

On examination the end of the uvula was prolonged as a thread of mucous membrane quite three quarters of an inch long, attached to which was a little tumour the size of a pea; this hung down in relation with the epiglottis. Removed and histologically proved to be a simple papilloma.

Papilloma of right supra-tonsillar fossa.—A. S—, æt. 48. For two years complained of lump in throat, with an uncomfortable sensation of something that he cannot swallow. Lobulated pedunculated growth size of a Barcelona nut grew from the floor of the supra-tonsillar fossa; removed with scissors. Histologically, epithelium regularly arranged over the papillæ, with a connective-tissue framework consisting of delicate fibrous tissue and small-cell growth (probably lymphoid).

B. Affections of the Nose and Accessory Cavities.

Chronic ulceration of nasal cavities; ? tubercle or lupus.—Jane T—, æt. 33, a nurse. A brother died of tubercle; history also on both paternal and maternal sides. Gave up hospital nursing three years ago, because not strong enough. A small ulcer appeared just within nostril three years ago; this was scraped at three different times and appeared to heal. There had been blood-stained discharge on and off since fifteen, but worse past two years; never offensive and no crusts. Extensive granulations present over the walls of both nostrils, with tendency to polypoid growths over anterior part of middle turbinals; no atrophy of bones and no perforation. Granulations bleed very easily. No physical signs in chest. Ol. Morrhuæ and tonics ordered—aristol and boracic acid in equal parts to insufflate locally.

After three months' absence, but using treatment, better.

Polypoid masses more marked, and some removed with snare ; surface also curetted. Same treatment continued.

Histologically this tissue was reported to show no evidence of tubercle.

c. *Affections of the Naso-pharynx, Pharynx, and Œsophagus.*

Pharyngomycosis leptothricia.—Irene T—, æt. 14. For some time the tonsils had been hypertrophied, but during the previous six months there had been noticed white patches which remained stationary. On examination both faucial and lingual tonsils hypertrophied ; posterior pharyngeal wall thickened. Scattered over these were white mycotic patches firmly adherent—chiefly on the tonsils. The tonsils were removed and the other patches curetted off, and a saturated watery solution of salicylic acid rubbed into their bases. Gradual improvement took place, and after four months' treatment there was no reappearance. Tonics were at the same time given.

d. *Affections of the Larynx.*

Defective abduction of right vocal cord due to tubercle.—F. E—, male æt. 37, December 22nd, 1898. Complained of increasing weakness of voice in singing for some three months, with some pain on the right side of neck. No sore throat and no cough, but occasionally night sweats.

His occupation is a clerk, but he sings a good deal. No history of syphilis. His father had disease of knee-joint after an injury ten years before ; this was excised and subsequently amputated, from which operation he succumbed.

On examination there was slight impaired abduction of the right cord with some injection of both cords ; there was no other intra-laryngeal lesion. On the right side of neck, below the posterior part of the right ala of the thyroid cartilage, was some fulness and slight tenderness on pressure. There was no evidence of any nerve lesion. No physical signs in chest. Under iodide of potash slight improvement.

The lesion was regarded as an extra-laryngeal infiltration mechanically interfering with the action of the right cord

through the involvement of muscle or hindrance of proper movement at the crico-arytænoid joint. This, in spite of its subsidence under iodide of potassium, was regarded as probably tuberculous, a diagnosis subsequently confirmed by the appearance of a superficial ulceration on the inner side of the arytænoid. ('Trans. Laryng. Soc.,' February, 1899.)

Mechanical fixation of right vocal cord.—Edwin M—, æt. 18, February, 1898. Tuberculous glands removed from neck about bifurcation of carotid, on right side, in June, 1897; some alteration of voice at time, which improved after. General health good. Right cord completely fixed in position of quiet respiration and a little reddened. Left cord on phonation adducted beyond the mid-line, explaining the improved voice. No lesion of right apex. Signs of old ulceration about the base of right arytænoid which explained the fixed cord.

Syphilitic perichondritis; impaired movements of cords.—Joseph L—, æt. 48. Syphilis twenty years before. One month before, when on drain-work, began to be troubled with his throat, not much pain; some cough; feels ill. Attacks of dyspnoea especially at night, but relieved on bringing up phlegm. Old destruction of uvula; marked swelling and irregularity of epiglottis now, and swelling with œdema over arytænoid and cricoid. Very limited abduction of both cords, but adduction not interfered with to any appreciable extent. Very definite improvement under iodide of potash.

Perichondritis; mechanical fixation of cord.—Annie O—, æt. 36, married. Noticed difficulty of breathing one year ago, September, 1897, which gradually became worse, and laryngotomy was performed; the tube was kept in a fortnight, and wound now completely healed.

For six months she has noticed loss of voice, and now cannot speak above a whisper.

There has been no illness of any kind and no specific history, but her tongue is undoubtedly syphilitic. There is swelling and œdema over both arytænoid and cricoid and in interarytænoid region; in the latter are some granulations. Both vocal cords are a dull pink, the left fixed in the mid-

line; the right can only be abducted half the normal distance. There is a subglottic growth in front, evidently a granulation mass.

There was gradual reduction of swelling under iodide of potash, but while she remained under observation the position of cords continued the same.

Mechanical fixation of cords from syphilis simulating bilateral abductor paralysis.—E. J—, a married woman, æt. 50, April, 1898. Always good health during the past few years except on occasions. Five children, all healthy. In October, 1886, attended St. Thomas's with laryngeal symptoms due to secondary syphilis, sore throat, hoarseness, a bronchial catarrh. In May, 1887, had a return of same symptoms. In 1893 attended for a time with laryngeal dyspnœa. She had influenza, followed by increased dyspnœa, in February, 1898, and this condition persisting she again came to the hospital in April.

On inspiration the cords almost meet in the median line, except in the interarytænoid region, the left cord being on a plane slightly superficial to the right; on expiration the cords recoil a little. On phonation the cords adduct normally. There is no definite swelling of soft parts, but some appearance of thickening in the arytænoid region. The left cord is still injected. Chest normal, no swelling in neck, and no signs of bulbar or nerve affection. Pupils and knee-jerks normal. The diagnosis was that there had been old syphilitic infiltration, causing defective movements at the crico-arytænoid joints, and muscular degeneration probably associated with perichondritis. The muscular wasting and altered tension of cords fully explained the appearance on inspiration. Under local treatment her catarrh and dyspnœa disappeared and the voice was restored. Very intolerant of iodide of potash.

(‘Trans. Laryng. Soc.,’ May, 1898.)

Mechanical fixation of both cords in adducted position.—James G—, æt. 36. A fairly healthy-looking man. Syphilis two years ago. There has been no pain or difficulty in breathing or swallowing. Fourteen days since became hoarse and lost his voice. He has been taking medicine for two years.

There is general laryngeal catarrh. The cords are in position of almost complete adduction. On deep inspiration the right cord abducts very slightly, the left remaining fixed, and on phonation the right is apposed to the left, but a small gap is left (defective tension of right cord). There is no evidence of any thickening or enlargement about the ary-tænoids or cricoid cartilages.

His pupils were equal, not contracted. Knee-jerks present. No evidence of ataxia.

The condition seemed most probably due to some interference with movements of cords through lesions about or in crico-ary-tænoid joints.

Polypoid tumour of right cord ; ? tuberculous.—Mary Ann J—, æt. 30, September 1st, 1898. Patient of Dr. Hector Mackenzie for three months at Brompton with signs of phthisis ; eight weeks ago sudden loss of voice and could only speak after in whisper.

On examination small red purplish growth on upper surface and edge of right cord at junction of upper and middle thirds. It was pedunculated and compressed on phonation. Slight reddening of the rest of the cord. After cocainisation the growth was removed by snare, but she unfortunately swallowed it.

With the presence of phthisis it was suggested that its nature might be tuberculous.

Tumour of the vocal cord ; ? myxoma.—F. G—, male, æt. 48, June, 1898, complained for some weeks of hoarseness. Small sessile swelling on right cord at junction of its anterior and middle thirds. It was convex, of a whitish colour, and compressed by the other cord. Removed with forceps under cocaine. The tumour was very soft, and smashed up in the forceps, exuding a mucous fluid ; thus no microscopical examination could be made. Its nature was either a cyst containing mucus or a myxoma.

Symptoms completely lost, and on examination his cord a few weeks after was pronounced normal.

(‘Trans. Laryng. Soc.,’ June, 1898, and February, 1899.)

Epithelioma of left cord and ventricle ; excision of half the larynx.—Charles J. B—, æt. 60, March 18th, 1898. Loss of voice for ten months, which seemed to date from a bad

cold some months previously; gradually got worse. A little pain on coughing, none on swallowing; slight cough. Recent loss of weight.

Between left vocal cord and ventricular band is a nodular pinkish growth with some yellow patches on it (superficial ulceration). The growth left a small piece of cord uncovered in front, which was seen to be congested. Movement of the left cord very defective. No glands.

Left half of the larynx removed March 25th. The growth proved to be as seen by the mirror, sprouting out from the ventricle over the cord. The patient developed bronchitis and died on the fourth day.

Histologically it proved to be a non-cornifying epithelioma, probably developing from the glands of the ventricle.

Carcinoma of larynx subsequent to laryngeal tuberculosis.—E. D—, a single woman æt. 36. Hoarse and aphonia in 1878. No pain or difficulty in swallowing until 1882. In 1885 treated with lactic acid for tubercle, and she continued attending the hospital for some years with varying laryngeal symptoms. Since 1893 not able to speak above a whisper. In July, 1896, she complained of weakness, dyspnœa, loss of appetite, and wasting, and in March, 1897, owing to extreme dyspnœa, tracheotomy done, after which she made distinct improvement up to November. In December swelling on the right side of the neck first noticed, and about the same time the margins of the wound sprouted. Laryngeal examination showed that the subglottic space was completely filled with growth. This gradually spread, so that almost the whole of the larynx was involved. The growth on the right side softened, forming a carcinomatous cyst.

There was a marked history of tubercle on both sides of the family, also a history of cancer. The chest gave signs of excavation at both apices, especially on the right side, but the disease was quiescent. She died in August, 1898.

Histologically the growth proved to be a soft non-cornifying epithelioma. ('Trans. Laryng. Soc.,' May, 1898.)

STATISTICAL REPORT

OF THE

E A R D E P A R T M E N T

FOR THE YEAR 1898.

By ARTHUR WEBB JONES,
CLINICAL ASSISTANT TO THE DEPARTMENT.

IN the report of this department for the year 1898, the rule of not inserting cases under two or more headings has been observed as in previous years.

Total Number of New Cases treated during the year 1898.

	Number of patients.		
	Males.	Females.	Total.
Diseases of the external ear	83	44	127
Diseases of the middle ear	215	264	479
Diseases of the internal ear	9	6	15
Miscellaneous diseases	7	7	14
Total	314	321	635

	Males.	Females.	Total.
A. DISEASES OF THE EXTERNAL EAR.			
Inflammation	10	1	11
Meatal abscess	3	2	5
Meatal polypus	1	—	1
Eczema	1	5	6
Herpes	—	1	1
Hæmatoma auris	—	1	1
Stenosis of meatus	1	—	1
Cerumen	64	31	95
Foreign bodies in meatus	3	3	6
Total	83	44	127
B. DISEASES OF THE MIDDLE EAR.			
Inflammation:			
(1) Acute	11	6	17
(2) Chronic (<i>a</i>) suppurative	79	105	184
(<i>b</i>) non-suppurative	36	69	105
Polypus	18	22	40
Eustachian obstruction due to—			
(<i>a</i>) Adenoids	58	51	109
(<i>b</i>) Other causes	7	7	14
Calcareous degeneration of membrane	1	1	2
Cicatricial membrane	3	—	3
Inflammation of mastoid	2	3	5
Total	215	264	479
C. DISEASES OF THE INTERNAL EAR.			
Syphilis	4	1	5
Menière's symptoms	1	2	3
Congenital deafness	2	2	4
Nerve deafness	2	1	3
Total	9	6	15
D. MISCELLANEOUS DISEASES.			
Nasal obstruction	2	1	3
Inflammation of cervical glands	1	1	2
Hypertrophy of tonsils	2	3	5
Neuralgia	2	1	3
Hysteria	—	1	1
Total	7	7	14

The following operations were performed in the department under a general anaesthetic :

	Males.	Females.	Total.
Removal of adenoids and tonsils	52	61	113
Removal of aural polypus	5	8	13
Paracentesis of membrane	3	3	6
Ossiculectomy	12	12	24
For cholesteatoma of attic	1	—	1
For meatal abscess	1	—	1
Removal of foreign body	—	2	2
Inferior turbinectomy	1	—	1
For deviated septum nasi	1	2	3
Total	76	88	164

REPORT ON THE CLINICAL LABORATORY FOR 1898.

By LOUIS L. JENNER, M.B.,
SUPERINTENDENT.

THE Laboratory was opened on November 22nd, 1897, and between that date and December 31st, 1898, 1664 specimens were examined and reported upon.

Tumours, &c.—535 sections were made of morbid material sent in from the operating theatres or out-patients' and special departments. These were in almost every case examined and reported on by Mr. Shattock, the sections being submitted to him at the end of each week.

Of the 535 specimens examined—

192 were carcinomas.

44 were sarcomas.

15 were rodent ulcers.

98 were granulation tissue and various chronic inflammatory conditions.

50 were inflamed appendices.

38 were tuberculous glands.

The remainder was made up of non-malignant tumours, cysts, enlargements of the thyroid, specimens of supposed ruptured tubal pregnancy, &c.

Serum reaction for typhoid.—The Widal-Grünbaum test was done 175 times in all. In 89 cases a negative result was obtained, and in 18 a doubtful reaction was given, the remainder showing a positive reaction.

The test used at first was the production of definite clumps of typhoid bacilli, when one platinum loopful of serum from a supposed case of typhoid fever was mixed with 9 loopfuls of an 18- to 24-hour culture of typhoid bacilli in peptone beef broth, the specimen being kept under observation for not more than 30 minutes. This, however, was found to be unsatisfactory, as several cases undoubtedly not typhoid were found to give the reaction; the use of a broth culture was also found inadvisable as, in spite of every care to keep the reaction of the liquid exactly that recommended, spontaneous clumping became extremely troublesome.

The test as subsequently used proved much more satisfactory. The time limit was kept the same, but the cultures were made on agar, and the growth washed off in a little distilled water and filtered through a double fold of filter-paper. The dilution used was considerably higher, viz. 1 in 20, 1 in 50, and 1 in 100. If clumping was only obtained with 1 in 20, the reaction was regarded as doubtful, and it was considered advisable to repeat the test in a day or two; but if definite clumps were obtained with the dilution of 1 in 50 the reaction was returned as positive. Under these stricter conditions the test was done 89 times, and of these 50 were negative and 9 doubtful.

In connection with the serum test, Ehrlich's diazo reaction was tried 116 times in all. It was compared with the serum test under the stricter conditions mentioned above 46 times, and here it agreed with the serum test 27 times; of these 27, in 19 the diagnosis was clinically correct, and in 8 it was incorrect; of these 8, in only 1 case were both tests positive and the case clinically not typhoid (otitis media); the other 7 cases were clinically typhoid, but both reactions were negative, although the serum was used as strong as 1 in 20; later in the course of the disease 2 cases gave a positive serum reaction, 2 a positive diazo reaction, and 1 gave subsequently both tests.

Of the 19 cases in which the tests did not agree, the serum test proved to be correct in 12 cases (11 positive and 1 negative), and the diazo reaction correct in 6 cases (all positive); and of these only 1 subsequently gave a

positive serum reaction: 1, however, died before there was time to repeat the test.

In one case the serum test was regarded as doubtful, the diazo being negative. Clinically it was typhoid.

To summarise the above:

The diazo and serum tests were done together 46 times: both agreed and were clinically proved to be correct 19 times (negative 14, positive 5); both agreed but were incorrect clinically 8 times:—(a) negative reaction in cases of typhoid, 7; (b) positive reaction in cases not typhoid, 1.

The tests did not agree:

Serum test positive, diazo negative, 11; typhoid clinically in all cases. Serum test negative and diazo positive, 7; typhoid clinically in 6. Serum test doubtful and diazo negative, 1; typhoid clinically, 1.

Although the cases in which the tests were compared are too few to allow of any definite conclusions being drawn, it would seem that if both tests agree and are positive the case is almost certainly typhoid; if both tests agree and are negative the case is probably not typhoid; if the tests disagree a positive diazo reaction is of rather more value than a negative serum, and a positive serum reaction is of much more value than a negative diazo test.

The serum test in these cases comes out less favourably than in many statistics, and this is probably not due to the high dilution used, as all the cases that were positive with 1 in 50 also gave a positive reaction with 1 in 100, while the test was never regarded as negative unless it failed completely with a dilution of 1 in 20. The cause of the difference in results is more probably due to the fact that the test has been applied only once or twice in any individual case, generally when the patient was first seen,—in fact, very much as most medical men would use it in private practice. The test would prove more valuable in doubtful cases if done every day.

Diphtheria.—Cultivations from patients were examined for diphtheria bacilli 266 times. Of these 83 were from patients in the diphtheria ward, and here the organism was not found in 17 cases. In 4 of these a positive result was obtained from a second culture, and in 5 the diagnosis was

altered after admission. In 3 the culture was not from the throat, but from some concurrent ear or eye discharge, leaving 5 cases clinically diphtheria in which the organism was not found, and in 2 of these the disease was confined to the larynx. Of the 183 cultures from patients in the general wards, casualty, out-patients' and special departments, the bacillus of diphtheria was found in 88.

Other cultivations.—Cultures for diagnostic and other purposes from the blood and from various secretions or excretions were undertaken in 71 cases, with a negative result in 33. The positive results included, amongst others, the *Diplococcus pneumoniae* in blood, *Streptococcus pyogenes* in blood, in pus from a cerebral abscess, in effusions into knee-joints, in liver pus, and in purulent conjunctivitis, *glanders bacillus* in pus, *typhoid bacillus* in pus, the *favus fungus*, the *diplobacillus of Morax* from some cases of chronic conjunctivitis, and the *colon bacillus* from an effusion into a knee-joint, and from urine. A streptothrix was cultivated from a sinus of lower jaw sent up as a case of actinomycosis. The organism, however, proved not to be the actinomyces. This case subsequently was admitted to another hospital, and a short account of the case published in a medical journal as one of actinomycosis. It appears, however, that microscopic examination alone was relied on, and later the diagnosis was on sufficient grounds altered to one of tuberculous sinus of jaw.

Blood.—Microscopical examination of blood was made 171 times. This included counting red corpuscles 52 times, counting white corpuscles 32 times, making a differential count of white corpuscles 4 times, estimating the percentage of hæmoglobin 36 times, and examining stained films 47 times.

Sputum.—Sputum was examined for tubercle bacilli 40 times, with a positive result in 8 cases. Of these, 23 came from medical, the other 17 from surgical wards or out-patients' department, where the sputum is not usually previously examined. In the 23 specimens from medical wards tubercle bacilli were only found twice. In the 17 specimens from surgical wards, &c., they were found 6 times. Sputum was examined for other points on two occasions.

Urine.—101 specimens of urine were examined. Of these 34 were for tubercle bacilli, the organisms being found in 10 cases. Thirty specimens were for casts, a positive result being obtained 8 times.

Calculi.—The chemical composition of 27 calculi from the kidney, the bladder, or the gall-bladder was investigated.

Vomit.—Twenty-three vomits or test meals were examined, in the majority of cases for free HCl.

Pus.—Forty-four specimens of pus and other excretions were examined microscopically.

Animal parasites.—Two animal parasites were reported on.

Water.—The filtered water used for operations in the theatres was examined for micro-organisms 51 times. It was found to be contaminated in the male theatre 7 times, and in the female theatre 7 times. The sterility of the sponges and towels, wool, catgut, and kangaroo tendon used at operations was tested 40 times. On one occasion the wool was not sterile, but the specimen was taken from a freshly opened but not sterilised packet. On one occasion a sponge gave a growth, but otherwise both the towels and sponges were invariably sterile. The kangaroo tendon was contaminated on one of the two occasions on which it was tested.

REPORT
OF THE
X RAY DEPARTMENT, 1898.

By A. BARRY BLACKER, M.D., B.S.,
SUPERINTENDENT OF THE DEPARTMENT.

SEVEN hundred and ninety-seven X ray examinations have been made during the year 1898, of which 688 came from the Surgical departments and 109 from the Medical departments of the hospital. The number of fractures was 146, of dislocations 42, of foreign bodies embedded in different portions of the body 174, of various surgical diseases 177; from which it will be observed that the number of examinations for surgical diseases was in excess of the examinations for foreign bodies, and would tend to show the increasing usefulness of the X rays, which at first were considered as probably limited in their application to the detection of metallic substances; the numbers, as a whole, show an increase of 237 examinations in comparison with the report of the preceding twelve months.

The foreign bodies were of the usual compositions; pins, needles, either whole or in pieces, glass, and fragments of metal constituted the majority; 1 fish-hook had been accidentally swallowed whilst being held between the lips

of a boy, 1 calcified guinea-worm was found embedded in the calf of a girl's leg, and 24 bullets were detected; most of these foreign bodies were discovered without any difficulty, and, when necessary, exact localisation was effected.

In connection with the subject of localisation it is important to note that it is not always possible, even with the apparatus in good working order, to detect foreign bodies in the thorax or abdominal cavities, should they have penetrated the walls and become embedded in any of the soft or moveable structures contained within them; when such bodies are stationary in any of the fixed parts, the matter is a comparatively simple one, but when embedded in tissues which are frequently in motion, or even when in the immediate neighbourhood of such parts, the result is not always certain; indeed, it is possible at the first examination to altogether miss the foreign body although it is present.

When examining with the fluorescent screen, or still more so when the photographic film is employed, the chief difficulty encountered is undoubtedly due to the movements of respiration, which are communicated to the tissue in which the body is embedded, the excursus of the object sought for being considerable, and, in consequence, the resulting shadow is blurred or indistinguishable from the surrounding parts; but, in addition to the movements caused by respiration, there are other difficulties to be contended with, such as the pulsation of the heart or large arteries when the foreign body is near enough to be affected by their pulsation, involuntary movements of the patient during exposure, and intestinal movements; moreover, effusion of blood or cicatricial tissue may cause as dense a shadow to be thrown as the object itself and so obscure it altogether, the differentiation of the opacity of the body being sometimes, under these circumstances, very difficult; and, last of all, some tubes have been proved to be astigmatic, and the rays from them may, in consequence, not be capable of causing a shadow to be thrown in the particular position in which the foreign body is situated. The distance of the body from the film is also a most important factor, for, in one instance, the excursus of the bullet as seen on the screen was as much as two and a half inches, and the

resulting shadow, when examined on an exposed photographic plate, very indistinct. Now, however, that the difficulties, the chief of which have been mentioned, are known, it is possible, even in the most difficult cases, to make a fair attempt at localisation.

The following is a classification of the different portions of the body examined :

	Upper Extremity.	Lower Extremity.	Head and trunk.
Foreign bodies . . .	97	37	40
Fractures . . .	85	61	—
Dislocations. . .	32	10	—
Surgical diseases . .	48	93	36
		General.	Particular.
Medical cases . . .	...	32	77

The fractures and dislocations do not call for any especial remarks.

Among the surgical diseases, 5 were examinations for tumours in connection with bone, 1 of hydatid cyst in the thorax, and the remainder were chiefly abnormalities, inflammatory conditions, and injuries.

Among the medical cases, 28 were for renal calculi and were occasionally successful, 26 were for thoracic or abdominal aneurysms, 14 for pulmonary diseases, and the remainder were for rheumatic or other conditions in which the bones were involved.

No cases of unintentional dermatitis have been produced during the last two years by means of the X rays, so that it is probable that now that the duration of the exposures is so shortened, this condition may be considered as non-existent, unless produced for a definite object, such as the destruction of inflammatory tissue or morbid growth.

THE SURGICAL TECHNIQUE IN ST. THOMAS'S HOSPITAL, 1899.

By CUTHBERT S. WALLACE, B.S.LOND., F.R.C.S.,
RESIDENT ASSISTANT SURGEON.

THESE notes first appeared in the 'St. Thomas's Hospital Gazette,' vol. ix, Nos. 1 and 2. As many who read them were kind enough to express their approval, I have thought it worth while to rearrange them and publish them in the 'Reports' in the hope that they may prove of use to others who do not read the 'Gazette,' and with the idea that they may be of interest for comparison in years to come when we have advanced still further.

The preparation of the patient.—When time permits, the intestinal tract is cleared out with castor oil on the night but one preceding the operation, and an enema is given on the following morning and on the morning of the operation. This permits of the patient having an undisturbed night before the day of his trial.

Should the time for the operation be in the afternoon, breakfast is given in the morning at the ordinary time, and

this is followed at about 11 a.m. with some hot broth, after which the patient has no food.

The preparation of the skin and site of operation.—It is assumed that the skin cannot in reality be made aseptic, and that the greater reliance is to be placed on common cleanliness than on any germicidal action of chemicals. This will be admitted even by the most strenuous supporter of the antiseptic method. It has yet to be proved that better results are to be got from the chemical methods than from the soap and water treatment, when all the errors due to the introduction of chemicals into the culture media, and to the testing of isolated portions of the skin are eliminated. In the first place all patients that are able have, of course, their daily baths. Those who are too ill to be bathed are carefully washed in bed. In addition when the site of operation is determined, and this is settled in the great majority of cases on admission, the preparation of the skin begins.

If the part is hairy it is shaved, and the patient in his daily bath is instructed to wash this part particularly with soft green potash soap. This is of great moment in hernia, varicocele, and other operations near the genito-urinary organs.

The shaving and the repeated soapings remove all the loose superficial epithelium which tends to collect in these parts, since its removal by friction is prevented by the hairs that cover it.

On the morning of operation the final touches are given. The patient after his bath is put back into bed with clean linen and body coverings. The skin is again shaved. The dresser now comes on the scene and covers the skin with a thin layer of green or ether soap, which is again covered with a piece of lint, and left *in situ* for a time that varies from half an hour to two hours. In the female wards this is applied by the nurses, the reason for this being that it saves time in our hospital routine.

In a few cases the soap is put on the skin and allowed to remain on all night, but there is some danger, if green potash soap is used, of producing irritation of the skin.

Then follows a thorough cleansing by rubbing with the

hands and nail-brush, followed by an application of ether on dry sterilised cotton sponges, and in some cases an application of 1 in 1000 solution of perchloride of mercury.

The operation site is now covered with sterilised lint securely fastened on with bandages.

By these means the skin at the time of operation is rendered soft, smooth, and free from any excoriation. No attempt is made to disinfect the skin by the continued action of chemicals, and we thus escape the soddening effect of the wet packing.

The patient thus prepared is placed on the trolley, having underneath him a large bed mackintosh and one or two small mackintoshes that are removed when the patient is cleaned up after operation. Over him are laid a small blanket that is kept for this special purpose, and a large rug.

In this state the patient arrives in the anæsthetising room, accompanied by the sister or staff nurse, with a probationer if the operation is in the afternoon. The patient is lifted on to the table and the anæsthetic administered.

Description of theatre arrangements.—It will now be convenient to describe how the theatres are worked. To each theatre four people are attached, composing the permanent staff. There is first the sister, who is at the head and responsible for the general working of the place, and the care of the instruments, dressings, and apparatus. Under the sister is the nurse, who helps the sister with the preparation of the dressings and general care of the theatre. Next there is a woman who does the scrubbing, washing, polishing, and cleaning, and she is assisted by the theatre porter, whose duty also is to bring the patients from the wards at operation time. In the mornings, when not at operation, the porter assists at the polishing, brings the lotions up from the dispensary, and does other heavy work.

Every morning the floor of the theatre is washed over, and all furniture is carefully washed or wiped over with damp towels. The metal work is polished, and the sterilising plant cleaned and furbished. The work is so arranged that, when possible, the theatre is closed, and the air kept quiet for an hour before operating begins.

Let us now suppose that an operation is to be performed.

The basis on which the arrangements are made is that the surgeon and the house surgeon, the dresser of the case, the sister of the ward, and the theatre sister are surgically clean, while the theatre nurse and a dresser to whom the case does not belong are clean, but not surgically.

All the work that involves soiling the hands, such as arranging the patient and cutting off packings, is done by the theatre nurse and the second dresser mentioned above. This leaves the operator and his assistants free to proceed with the operation directly the position of the patient is decided.

Surgeon, house surgeon, anæsthetist, dressers, theatre sister, theatre nurse, ward sister, and probationer wash their hands and forearms, and then put on sterilised blouses that fasten behind, completely cover up the clothes and leave the forearms bare to just above the elbow. The theatre sister then places what instruments are required, along with syringes and drainage-tubes, in the steriliser and closes the lid. The theatre nurse at the same time places in the big boiler hand-basins, porringers, receivers, and the instrument tray. The anæsthetist, attended by a dresser, administers the anæsthetic, and the surgeon, house surgeon, and dresser of the case are engaged in washing the hands for the second time. The patient, when under the anæsthetic, is wheeled into the theatre and placed in position by the anæsthetist's dresser, helped by the theatre nurse, who also cut off the packing and arrange the mackintoshes. The ward sister, after the case has come into the theatre, has again cleaned her hands and is now ready to hand the sterilised towels with sterilised forceps to the surgeon and house surgeon, the lid of the tin in which they have been sterilised having been opened by the theatre nurse. In the meanwhile the theatre nurse has opened the lids of the sterilisers, and the theatre sister having again washed her hands has placed on the instrument table a clean sterilised towel. She then takes out the instrument trays and puts them on the towel, after which they are filled with water from a Berkefeld filter. The instruments are then turned out into the instrument or cooling tray and arranged for operation. Specimen porringers are placed in a sterile towel on the under shelf

of the operating table. The theatre nurse now places the basins in the stands and the porringers and receivers in sterilised water (after use these are again boiled and placed in sterilised water), if she has not done so already, care being taken that they are only touched with clean hands. When the case is an emergency one the cleaning of the operation site is done by a dresser under the supervision or with the assistance of the house surgeon. In some cases the operation site is again washed at the time of operation. If during an operation the patient has to be moved, the table altered, a limb manipulated, or anything done that involves touching anything that is not surgically clean, this is done by a dresser who is not engaged immediately at the operation.

The tins of sterilised dressings, etc., are always opened by the theatre nurse and the contents handed by the ward sister with sterilised tongs, and by this means dressings and sponges, etc., reach the surgeon without being touched with the hand.

The sterilised towels are so arranged that they cross the patient and table transversely, overlapping at the sides so that no mackintosh or blankets are visible, leaving only those parts of the patient exposed that are necessary for the administration of the anæsthetic and the conduct of the operation. When the operation is near the neck the hair is retained by a boilable rubber cap covered by a sterilised towel, and the extremities, if they cannot be placed under the transverse-laid towels, are either wrapped up in a sterilised towel or covered with sterilised stockings, which are best, as there is no tendency for them to drop off.

By these means when all is ready for operation, everybody on the floor of the theatre is covered in sterilised garments, and the patient and everything on the table above the tops of the legs is covered in a similar way. Thus the risk of the hand touching anything that will harm the patient is reduced to a minimum. At the same time every one is taught to keep the hands, after they have been cleaned, from touching anything except instruments and the towels in the immediate vicinity of the operation.

Between the operations the floor is wiped clean by the

scrubber, who is clothed in a white washing overall. The theatre porter, when engaged in fetching and taking away patients, wears a long white washing coat.

Cleansing of hands.—First and foremost the students are taught that chief reliance must be placed on soap and water. To this end the hands and forearms are thoroughly washed, once before the blouses are put on and once again afterwards. Either green potash soap or ether soap is used, and both are rubbed into the skin before water is applied. In order to do away with the necessity of touching taps or having complicated pedal taps, the water is set running before operations and allowed to run during their course. The delivery-tube from the tap is furnished with a rose to spread the water. The hands after washing are wiped on small, freshly-sterilised towels, which are only used once before an operation and are used again for ordinary purposes of drying the hands after operations are over. The hands are then washed over in perchloride followed by sterilised water, or by sterilised water alone. Great stress is laid on the hands being smooth and free from cracks. Nails are, of course, kept short, but cleaning of the nails with instruments is discouraged, as this roughens the surface and favours the accumulation of dirt. With a little care a nail-brush is sufficient, and scraping is very rarely necessary. Smoothness of the skin is greatly helped by the avoidance of chemical lotions, which are apt to precipitate the blood on the hands and nails, and also to cause chaps and cracks. Another point is that the time that can be practically afforded for the applications of chemicals is far short of the time sufficient for the germicidal action of the chemical. In consequence of this, it is impressed on students and nurses that a perfunctory dip in a chemical is of no value, and in order to clean the hands they must be washed with soap and water.

As it is impossible to render the hands aseptic, gloves have been introduced which are worn by all persons immediately concerned in an operation.

The cotton gloves are sterilised by steam in the same way as the dressings, and the rubber gloves are boiled in the instrument steriliser. The cotton gloves are used for clean

cases with the idea of preventing the epithelium from being rubbed off the hands into the wounds. It should be borne in mind that silk is very likely to be contaminated in this way, and this infection of the silk may account for the late atoxic suppuration that follows its use, the carbolic in which the silk is kept being absorbed, thus allowing the growth of the bacteria.

Rubber gloves are used, as a rule, for septic cases, to prevent the hands of the operator carrying infection, though, of course, clean cases are always, when possible, done before the dirty ones.

With regard to hands being the most frequent cause of infection of wounds, it is interesting that when clean cases fail to heal by primary union it is nearly always the first and second cases that go wrong. This suggests that the hands are the cause of infection and become clean by the more frequent washing.

Sterilisation of water ; irrigation ; treatment of wounds.—Since 1890, Berkefeld filters have been in use to produce sterilised water. A full description of the arrangements will be found in a paper by Mr. E. White in vol. xxii of the 'Hospital Reports.' The only alteration that has been made is the substitution of three candles for one in order to increase the flow for flushing the abdomen. This water is used for the instruments (unless the surgeon directs otherwise) and also for the hand basins, where it is constantly changed. The basins are supported on moveable tripods which hold two basins, the upper one containing the sterilised water and the lower 1 in 1000 perchloride to be used if required.

For flushing (the abdomen) a long tube that has been boiled and then immersed in fluid is taken out by the theatre sister, who retains the flushing end while she hands the other to the theatre nurse, by whom it is fixed on to the filter. The flushing end is then handed to the surgeon.

Normal saline is made by adding a concentrated saline solution (sterilised by boiling in flasks) to water from the filter.

The filter cap, with candle and delivery-tube, is boiled for twenty minutes every day. The water that actually

passes through the filter is always hot water from hospital boilers, and is therefore subject to temperature little short of boiling point for many hours before use. The cold water simply circulates in a jacket so as to cool the hot to the required temperature.

Solutions of perchloride of mercury (1 in 500), carbolic (1 in 20), are kept in the theatre, but their use is not nearly so frequent as formerly. Flushing of clean wounds is getting rarer and rarer, and even when done the agents employed are nearly always sterilised water or saline. In fact, the use of chemicals to wounds is almost a thing of the past. This also applies, though perhaps in less degree, to septic or suppurating wounds, the tendency here being to trust to the mechanical effect of the douche only.

There is also a strong feeling against continuous irrigation of septic wounds, infected joints. Infected joints are usually washed out and sutured in the first instance. If this is not effectual the process may be repeated or the joint again incised and gauze drains employed for a few days, combined with diurnal irrigation of the joint. The more severe cases of gonorrhœal infection of joints are treated by incision, followed by irrigation and suture.

Compound fractures are carefully cleaned, as regards the skin, with soap and water. The bruised edges are excised and then all dirt is carefully removed by clipping away with knife or scissors all infected tissue and irrigation of the wound with sterilised water or saline fluid. The wound is then dressed and a suitable splint of plaster or other material applied.

The use of antiseptic powders to wounds either externally or internally is, to all intents and purposes, dead. Iodoform emulsion is still, however, occasionally used to tuberculous affections.

As all protectives in general use were found to have the disadvantage of being destroyed by boiling, a foil composed of tin and lead was introduced. This can be boiled, and if perforated will let the discharges through into the dressing; we thus have a protective that can be removed without pain, presenting none of the objections to those on the general market.

In the wards, perchloride, carbolic, and boric acid solutions are used for the purpose of wound flushing. The Berkefeld filters and means of sterilising saline fluid are, however, being now fitted in the surgical wards.

Drainage of wounds.—The general universal use of drainage has here, as elsewhere, fallen into disuse. There are signs that the pendulum has swung to its full extent, and that drainage may again become a little more used. Rubber tubing is not used much, but is supplanted by gauze wicks which are removed in twenty-four hours. This change may be accounted for by the more extensive nature of the wounds made, especially in breast operations with the large pocket formed by the axillary flap.

No drainage is used in clean abdominal work, but in cases of abscess and general peritonitis drainage is used, though not universally, and here the gauze drain has ousted the tube for the most part.

Preparation of sutures and ligatures.—The silk (China twist) is first wound into balls. When required for use it is wound on to reels, on which it is boiled three times for twenty minutes, when it is transferred to the silk tray and immersed in 1 in 20 carbolic, from which it is drawn for operations. There are two trays kept, one for clean and the other for septic cases. The finest silk is stained with methyl green, which gives it a dark blue colour and renders it easily seen. The two next larger sizes are stained pink. The carbolic in the tray is changed at least twice a week, and if there is any likelihood of the silk having become infected it is reboiled.

Silkworm gut and horsehair.—Silkworm gut is used in two sizes, fine and coarse. This is much in favour for skin and abdominal wall and hernia sutures, in the last case being used as buried sutures. The finer variety is very useful for suturing structures in layers, and is occasionally used to tie bleeding points. The finer variety is stained in the same way as the finest silk.

Horsehair is used for skin and also for buried sutures. Both materials are boiled just before use, but are also kept ready for immediate use in the following manner :

About a dozen strands of the silkworm gut and six strands

of horsehair are coiled into a ring, and in this state boiled and then transferred to small glass jars, in which they lie in carbolic lotion. When required they are lifted straight from these jars, and any left over is thrown away if horsehair, and reboiled if silkworm gut.

Catgut is used, though not so much as formerly. It is sterilised at present by chemicals, but with improved methods of sterilisation by heat it may again become popular.

Kangaroo tendon and *goldbeaters' skin* are also purified by chemicals, but have of late fallen into disuse.

Main arteries are tied with either floss or twisted silk.

Instruments.—All instruments are now made of metal throughout, and nickel-plated for the most part. They are made to offer as few sharp corners and retiring angles as is compatible with efficiency.

The knives are ground so as to have no shoulders, and the instrument maker's name is only marked on by the action of acid, and so presents no interstices. This was more important formerly than at present, as Mr. White finds that by boiling the knives in zinc racks the edge is well preserved in nearly every case, so long as the cutting edge is not too obtuse. This method occasionally leads to staining of the blade, but this is really of very little moment compared to the surgical cleanliness of the instrument.

All instruments are boiled for five minutes before an operation, and any instrument that is wanted, but has not been boiled, is put in the steriliser by the theatre nurse and handed in the wire tray to the sister, so that she has no cause to soil her hands. The rule of five minutes' boiling is rigidly adhered to except when relaxed at the express instance of the surgeon.

At the end of the day's work all instruments that have been used are again boiled for fifteen minutes, after which they are carefully dried and put back into the case.

Sterilisers are also provided in the wards, and in all the casualty, receiving, and out-patients' rooms.

In the out-patients' department there has been instituted an operating room which is arranged in the same way as the theatres as far as its surgical fittings are concerned. In

this are done the minor surgical operations that arise in the out-patient or casualty departments, exclusive of course of minor accidents.

Drainage-tubes and syringes.—Rubber and glass tubes are boiled and immersed in carbolic acid (1 in 20). If it can be foreseen that they will be required in an operation they are re-boiled with the instruments.

Higginson's and other syringes are boiled every day, and then immersed in sterilised water. When required they are again boiled if time permits.

Dressings.—The following articles are sterilised: sponges, operation and hand towels, operation blouses, wool, Hartmann's wood wool, Robinson's tissue (alternate layers of cellulose and wool), bandages (open, wove, and muslin, the latter most used in theatre), plain and cyanide gauze.

It is well here to make clear what is meant by sponges. Marine sponges are still used for abdominal work, though the tendency is to replace them even here with gauze pads. For all ordinary work the sponges used are made of absorbent wool covered with a layer of plain gauze fastened at the back of the sponge, if one may use the term, by the ends being twisted together and then tucked in under the gauze. When made they are roughly two and a half inches in diameter.

All materials to be sterilised are put into boxes made of tinned copper. These are of various shapes and sizes, according to their contents.

The square tins are made in two sizes, $12 \times 9 \times 8$ inches, and $11 \times 6 \times 6$ inches. The lid is hinged to the box, and has a half-inch overlap fitting the body of the box tightly. Within is a wire cage, so made that it just fits the inside of the box. The hot steam can thus circulate round the materials in the box, and so more quickly penetrate into all the interstices. This is all the more important, as these boxes are used for the sterilisation of towels and blouses, which from their folding present difficulties to the penetration of the steam. The wire cages also prevent the contents touching the sides of the tins, thus allowing more thorough drying after the steam is shut off.

The round tins have the following dimensions: 8 inches

high, and 6, 5, and 4 inches in diameter; there are also a few of less height and of varying diameters.

The lids of these tins are quite separate, and are about a quarter of an inch larger in diameter than the tins themselves, so that a layer of wool can be spread over the top of the box before the lid is put on. Sponges, bandages, gauze, etc., are sterilised in these tins.

In the theatres no attempt is made to sterilise separate complete sets of dressings, but each material is sterilised in a separate box and then used as required, being handed on tongs as before described. The reason that the separate dressing system was not adopted is the impossibility of telling what may be required in each case. The lids are only raised while the dressing is going on, and then closed. The sponges that are being constantly used are kept in small tins, which are soon used up, thus minimising exposure to the air.

In the wards the separate tin system is in vogue, the dressing required for each patient being placed in an 8 × 5 inch round tin, which, after it has been sterilised, is not opened until required. The round tins are also used in the wards for sponges, while towels (hand and dressing), lint for packings, wool and gauze for odd dressings, are sterilised in square tins.

There is one disadvantage of using dry gauze; the discharge is apt to spread out and appear at the edge of the dressing, but this can be avoided by soaking the first piece in sterilised water.

Plain and cyanide gauze are by far the favourite dressings, but are occasionally exchanged for iodoform gauze. Of the outer air-filter dressings, ordinary absorbent wool and Hartmann's wood wool are mostly used. Sublimate, sal alembroth, and salicylic wool have practically disappeared.

There are two sterilisers of the well-known Washington-Lyon pattern. Both are fitted with a steam ejector capable of producing a vacuum of twenty-two inches of mercury.

First of all the apparatus is warmed by turning the steam on. The tins, previously filled by the theatre or ward sister, are then placed in position with the lids open.

With these are also introduced a quantity of cotton wool and a pair of cotton gloves. The steriliser is then screwed up and the exhaust set going. When a satisfactory vacuum has been maintained for some time, the steam is admitted and maintained at a pressure between twelve and fifteen pounds for thirty minutes; the steam is then shut off, and the exhaust set going again, by which means filtered air is admitted and drawn over the dressings, drying them in its passage.

The lid is then opened by the attendant, who now washes his hands and puts on the sterilised gloves. He then spreads a layer of the sterilised wool over the tins and closes the lids and fastens them down with strips of tough paper.

These strips of paper must be intact when the dressing is to be used, or it is returned for re-sterilisation.

Bacteriological examination of dressings, water, etc.—All materials that are sterilised are subjected to periodical bacteriological examination. For this purpose there are placed in the tins small pieces of the same material as the contents of the tin. An assistant from the clinical laboratory has the tins opened in the theatre, and removes the test piece and places it in sterile broth.

The water from the Berkefeld filter is also tested in the same manner, the water from the delivery tube being received into a broth-tube.

Although by this means the sterility of the dressings is not proved until after their use, yet this method enables a careful outlook to be kept on the general process of sterilisation. During last year the dressings only once gave a growth, which, considering the number of experiments, might well come within the errors of observation.

The water from the filters was not so good, and gave a growth on some six occasions. From the method employed, however, accidental contamination is much more likely with the water than with the dressings.

In the wards a careful record of all cases that fail to unite by first intention is kept, including the names of all who took part in the operation, and any observed error in the technique. It was found that on the dates when the water gave a growth the wounds all healed *per primam*.

Catheters, bougies, sounds.—Metal instruments can be satisfactorily cleaned by washing and boiling, and need not therefore be further considered. The same applies to Jacques' catheters.

Flexible bougies (black) can be rendered practically clean by washing and rubbing.

Soft catheters are not, however, satisfactory. Boiling is not applicable as a routine measure, as this renders the instrument so soft as to be no better than a Jacques' catheter, or destroys it. Keeping them in a solution of perchloride and glycerol is open to the same objection, as they soon become rough and useless.

They are now, as a rule, carefully washed and dried and then kept in a glass tray in the horizontal position. When required they are boiled for a short time or washed again carefully and rubbed externally with cotton wool, then immersed in 1 in 1000 perchloride and glycerol, from which they are used.

If a case requires continued catheterisation, the instrument is reserved for the particular patient in a long glass jar filled with perchloride and glycerol sealed with a rubber cork. After use it is carefully washed and replaced.

For females a glass, metal, or soft rubber instrument is used, which is sterilised by boiling. As far as possible, the same process is carried out on the male side, there being two silver catheters in every male ward.

Treatment of burns and scalds.—When a case of burn or scald is admitted the patient is taken at once to the ward and there is undressed. The patient is then taken to the theatre and an anæsthetic given. The burnt area is then cleaned, as far as possible, with soap and water and a dressing of sterilised lint wrung out in a saturated solution of picric acid applied. This is covered with jaconet and wool, held in place with bandages. This dressing is, as a rule, left undisturbed for twenty-four hours. If the dressing is then found to be still sweet, the jaconet is unfastened and the underlying lint is moistened with more picric acid; if foul, it is changed throughout. If the temperature remains normal, this dressing is continued until the wound is healed or ready for grafting. If the temperature rises, a daily and

prolonged boracic bath is given and the burn dressed with picric acid solution in the intervals between the baths. If deep sloughs form, it is found that picric acid has the disadvantage of making them tough and delays the separation. When this is the case, the daily bath is used with picric acid dressings or with boiled wet dressings. Directly the surface is clean, a gauze dressing is usually applied for a few days and then the surface partially or wholly covered with Thiersch's grafts. These are covered with foil protection and over them a gauze dressing is applied, which is usually left on for three or four days.

Note.—"City Ward" was opened in June, 1899, and the work there has been carried out entirely on the aseptic principle, there being no antiseptic of any kind kept in the ward. The result so far (November, 1899) has been extremely satisfactory.

ON VENTRAL HERNIA:

AN ABSTRACT OF A CLINICAL LECTURE.

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As there have been recently under care in the wards some examples of abdominal hernia, and there is now a striking instance of that condition under treatment, I have decided to bring this subject more fully before you, for it is one of great importance, and in few text-books is it adequately described.

The case from the Elizabeth Ward now shown is that of a married woman, aged 30, for whom the operation for the radical cure of ventral hernia was performed on the 28th of September. I am indebted to Mr. Shipman for the notes of the case. The patient, who is a tall and very stout woman, weighing 15 stones, was admitted on September 26th for a painful abdominal swelling. She stated that two years ago, after she had been confined of twins, a swelling was noticed for the first time, and that it had been painful, especially when doing her house-work; rest seemed to ease it. On one or two occasions there had been attacks of

greater severity. The most severe of these was about ten days before, and it had lasted for some hours. Although the pain was very severe, it had not been accompanied by vomiting or constipation. The swelling gets larger during the attacks.

On examination, a swelling was found in the mid-abdominal line, about two inches above the umbilicus. It was rounded, irreducible, somewhat tense, and very tender when compressed, whilst it was also the cause of a good deal of pain. It was about the size of half a duck's egg, and, although evidently coming through the linea alba, was without impulse on coughing. There was a considerable thickness of subcutaneous tissue over it. It gave a doughy feel when taken between the finger and thumb. The abdominal wall generally appeared rather relaxed, and when she lifted her head and shoulders from the pillow a wide, rounded ridge arose, extending down the middle line to the umbilicus, showing a marked condition of divarication of the recti muscles, the hernia being over the lower part of it. Her general condition was good, excepting that the pain of the hernia prevented her getting about her household duties.

The condition was one of painful irreducible ventral hernia, for the reduction of which operation was demanded, and an attempt at radical cure indicated. An incision of about four inches in length was made over the swelling in the middle line, and the subcutaneous fat separated from the sac of the hernia. An attempt was made to reduce the contents by taxis, after which it was proposed to invaginate the sac and close the fibrous ring without opening the peritoneum; but in the attempt to separate the fibrous structures round the neck from the peritoneum the sac was opened on account of the close adhesions at that part. It was excised after the return of the contained omentum, which was nowhere adherent, but was bulky in proportion to the size of the sac. Flat gamgee sponges were placed in the abdomen to keep back the omentum and intestine. The fibrous ring of the neck was then separated, the peritoneal opening closed with interrupted silk sutures, and the fibrous ring brought together over that with salmon-gut stitches. In

order to strengthen this line of union the fibrous structures on each side were approximated by further reinforcing salmon-gut sutures, inserted after the method of Lembert. The superficial wound was then closed with interrupted sutures of the same material, a drainage-tube inserted, and cyanide dressings applied. On account of the excessive fatty deposit, this wound must have been about four inches deep. The operation was rendered more difficult by a constant tendency to vomit on the part of the patient.

With the exception of a little suppuration in the middle of the superficial part of the wound, she made a very satisfactory recovery, all the superficial stitches being removed on the seventh and the drainage tube on the third day. On leaving she will be supplied with an abdominal belt.

This woman presented a variety of ventral hernia which is remarkably seldom met with in females. I think I have seen ten in the male to one in the opposite sex. The acquired ventral hernia may be met with in three situations—(a) in the middle line of the abdomen (*linea alba*), (b) in the *linea semilunaris*, and (c) in one of the *lineæ transversæ*.

If we exclude for the moment umbilical hernia, to which I shall have to refer presently, the middle line is by far the most common site of these herniæ. Met with most commonly in adult males (although some of you may remember a boy of ten years old who came to my out-patient department with a small ventral hernia last year), it usually shows as a small rounded swelling in the middle line between the ensiform cartilage and the umbilicus, feeling like a fatty lump—which, indeed, it is. Its importance is shown by its pedunculated attachment and the presence of a rounded opening in the middle line, through which it can often be returned. It is also in most cases very tender to the touch, whilst at times it is so troublesome that the patient begs for relief. The treatment will vary but little, and is dependent more on the size than on the variety of the hernia; for whether it consists only of a pellet of subperitoneal fat, or includes peritoneum with or without omentum or intestine, the principle of operation is the same—to return the pro-

trusion and close the opening through which it has passed by means of sutures passed from side to side or from above downwards, according to its shape; and these are not infrequently oval, with the long diameter across the middle line. Most of the men who have this form of hernia are not remarkable for the amount of their adipose deposit. There may be more than one of these protrusions present.

Occasionally a hernia is found in the first two inches below the umbilicus.

Herniæ are seldom found in the lineæ transversæ; only seven were seen at the Truss Society in sixteen years, and of these five were in males of advanced age.

Hernia in the linea semilunaris is usually below the level of the umbilicus and (excluding direct inguinal hernia) is rare; as a rule, it simply requires an abdominal belt.

I have asked you to observe the condition of the abdomen in the middle line above the hernial wound; here there is considerable separation of the recti muscles with forward protrusion of the stretched linea alba; to this state the term "divarication of the recti" is applied. It is met with chiefly in two classes of cases—the stout woman who has borne children, and the child who suffers from rickets. Its full extent is well shown when the patient is made to lift herself from the recumbent position without the aid of her hands. In the adult local treatment by means of a belt is indicated; in the child tonic, with general attention.

The more irregular forms of ventral hernia result from injury, such as surgical operation, stabs, the bursting of abscesses of the pelvic region, or perityphlitic or other deep abscesses, whilst they may result from a direct contusion of the abdominal wall, primarily, owing to rupture of muscular tissue, the wall being thus weakened, or, secondarily, in consequence of yielding of the scar tissue which has resulted from the rupture. They may also be present in consequence of a congenital deficiency.

When the surgeon operates on the abdomen at the present day he frequently selects a route through the rectus or displaces muscular structures in such a manner that their anatomical arrangement is practically restored without injury when the operation is finished. If the middle line is con-

sidered the most satisfactory one that can be taken, then careful suturing in layers is done and primary union is secured, if possible. Attention is given to strengthening the scars by giving rest long enough for firm union to take place, whilst in every case an abdominal support is ordered. Sometimes from the nature of the case this course of action has to be deviated from and a weak scar results, which yields to the intra-abdominal pressure. In these cases a belt is nearly always efficient and will keep the protrusion under constraint; strangulation is almost unknown, because the opening is large and the edges of it yielding, whilst the large amount of omentum in the sac diminishes injury to the bowel. The acute strangulation of the contents of the hernia in the following desperate case is therefore unusual, and must be ascribed to the rigid nature of the fibrous margin of the opening, the large size of the hernia, and the absence of omentum from the sac.

A married woman, aged 41, was admitted to Elizabeth Ward on August 30th (Mr. Hunt, dresser). She had been subjected to abdominal section two years ago in the Gynæcological Ward for a condition which necessitated the use of a drainage-tube in the after-treatment. Suppuration followed, and the wound healed by granulation slowly, so that it was not quite well when she left the hospital. She had a belt given to her, but soon noticed a swelling in the line of the scar of the operation wound, and it has gradually increased in size. For some months the surface has been sore. She suffers from morning sickness. Only twelve hours before admission she was taken with severe pain in the swelling, vomiting came on, and there had been no action of the bowels. She was suffering severely from shock, having a restless manner with white face and lips and rapid small pulse. The hernia was as large or larger than her head, issued from below the umbilicus in mid line, was ulcerated superficially, and the seat of great pain; very tense, she started at the least touch anywhere over its surface. There was no impulse on coughing, and it was generally resonant.

It was evident that the condition was one of urgency and the strangulation acute, so no time was lost in placing her

under anæsthetic and doing necessary operation. Incision was made on the left side after the swelling had been carefully cleansed and the sac opened. Very offensive fluid escaped, and the whole of the intestine in the sac was found to be gangrenous. The greater part of the sac was at once excised and all the ulcerated part taken away. A stitch was passed across the wound through the mesentery, the intestines, which included portions of the large and small gut, emptied of their contents, and a Paul's tube placed in the upper end. The gangrene was distinctly limited by the line of the opening. This was the best that could be done, for her condition was very bad and the anæsthetist said it was not possible to go to resection. The whole was washed with 1 in 1000 perchloride of mercury solution, dusted with iodoform, and wrapped in cyanide gauze.

Her condition improved during the next day in response to stimulating enemata, but she complained of much thirst and there was frequent vomiting. In two days she had gained ground to such an extent that it was thought best to remove the gangrenous mass, and put in Paul's tubes at the free ends without disturbing the mouth of the sac. This was done; four feet of intestine which was lying on the abdominal wall being removed, including a large part of the ileum, the cæcum, appendix cæci, and part of the ascending colon. The line of demarcation was well marked. The hæmorrhage during the division of the mesentery, meso-cæcum, etc., was free, and it was evident that she would not have survived had this been done on the former occasion. She continued to vomit after the operation, and no remedy employed did more than relieve temporarily. There was no pain, and the abdomen remained soft and freely movable. Her aspect was that of a patient the subject of chronic renal disease passing into the uræmic state, but the urine was of fair amount and without abnormal character. Coma gradually supervened, and she died after a rise of temperature early on the morning of the 6th of September.

Beyond the fact that there had only been one kidney and the presence of congestion of the lungs, there was nothing abnormal disclosed at the post-mortem examination. A gangrenous state of the contents of the hernia was not ex-

pected, although the symptoms of strangulation were severe, and the effect on the general condition very marked. The hernia was a protrusion through a large opening, one which admitted four fingers; her symptoms had only existed for twelve hours, and the severe pain and tenderness contrasted strongly with the loss of pain which usually accompanies the onset of gangrene. Moreover, excepting for the ulceration of the skin due to long-standing irritation from clothing and neglect, the surface of the tumour showed no abnormality.

Removal of the affected portion in a case of gangrene of intestine in strangulated hernia is the best method of treatment if the condition of the patient admits of it, the continuity of the canal being re-established by suture. If the patient's condition is too bad for this to be done, the best plan is to relieve the obstruction and endeavour to prevent septic infection of the peritoneum. How far a septic thrombosis of the mesenteric veins had to do with the fatal result in this case I cannot say, but the post-mortem showed that we succeeded in our efforts to obtain the results last mentioned.

It would be hardly right in speaking of ventral hernia to exclude umbilical from consideration, more especially as you will meet with it in practice far more frequently than any of those forms already mentioned. A fairly typical example of the variety of this hernia which is met with in the adult, is shown in the case of the woman who left the ward a few weeks ago after operation for strangulation. The case is a remarkable one, for this was the fourth operation for strangulated hernia which she had undergone, a statement which with our improved treatment will cause no surprise to you, although, when I was a student, recovery after strangulated umbilical hernia was hardly ever attained.

The case is briefly as follows:¹—A widow of stout proportions, æt. 57, weighing 15 stones, was admitted on June 2nd of this year, under my care, for strangulation of a large umbilical hernia. She stated that she had been operated on twice before for a similar condition, in August, 1896, and February, 1897, and reference to the notes

¹ From notes by Mr. Coates.

showed that on the second occasion an attempt at radical cure was made. She had had children, and had been compelled to wear a truss for a period of seven years before the first operation. She had worn a belt, but the hernia had gradually returned, and on the 24th of May she was frequently sick; a rest in bed relieved her symptoms, but when she got up vomiting came on again, and the symptoms of strangulation were marked when she came to the hospital. A semilunar incision was made at the operation to the left of the hernia, the sac of which was opened and the contents reduced as far as possible. Omentum was adherent to the sac and to the edge of the opening, whilst the transverse colon was so firmly adherent to the sac in the upper part that it was not possible, considering the general bad state of the case, to separate and reduce it. The omentum was divided between forceps and ligatured, the stump being returned. The size of the sac was diminished, and the fibrous structures brought across to some extent, but no attempt at radical cure could be made. She made an uninterrupted recovery.

Having been duly warned to come early if symptoms again came on,¹ she applied on July 19th last with strangulation which had commenced at 6 a.m. Operation was performed under more favourable conditions, and after the sac had been opened and the strangulation of large intestine relieved (it was markedly congested over a limited area), an attempt to obtain a radical cure was made. A slightly yellow serous fluid oozed from the peritoneal cavity after the strangulation was relieved. Adherent mesocolon and omentum were separated from the edge of the opening on the left side, several ligatures being applied, some of the intestine was cut away from the abdominal wall with the tissue to which it was fixed, as it did not permit of separation, and thus the mouth of the sac as well as the peritoneum around was freed from adhesion.

The opening was then closed in three layers—interrupted silk sutures for the peritoneum, the edges of the fibrous ring approximated with strong silk; these were reinforced by other silk sutures which, passing across from the fibrous

¹ From notes by Mr. Shipman.

sheath of the rectus on each side, caused a broad band of fibrous nature to be in contact. Salmon-gut sutures were placed in the superficial parts and a drainage-tube put in. This tube was removed after thirty-six hours. Convalescence was uneventful, and the patient left on August 12th wearing a strong belt. Time alone can show if this attempt at cure will be successful or not; at present it looks well.

You will have noticed that the primary incision in these herniæ is not made in the middle line as was formerly the practice; the reason for this change is that the contents are much more frequently adherent along the middle line than at the sides.

I have said this was a fairly typical case, and so it is as regards age, sex, and general appearance, but, unfortunately, in too many instances there is, in addition to the stoutness, a chronic bronchitis with emphysema, and not infrequently a dilated heart, whilst too often chronic alcoholism has caused serious tissue degeneration. These patients will frequently do badly, for they are not brought until exhausted by vomiting, pain, and want of food, and this, in addition to their chest trouble, is often too much for them to stand. Peritonitis is rarely a cause of death; careful suturing of the peritoneum with aseptic precautions and the use of a properly cut drainage-tube has changed this. The great danger is from bronchitis with pulmonary congestion, and this may be best prevented by change in the position of the patient; do not keep her lying too much on her back, but at intervals turn her from side to side. In hospital practice these operations are difficult, although we are working under the best advantages; in private the full operation is too often impossible, and you may be well advised in refraining from opening the sac, being satisfied with dividing the fibrous ring in the middle line above, so as to relieve the pressure at the neck. The contents are most difficult to manage if they are permitted to escape in these large herniæ, and it might not be possible to return them.

Do not, however, imagine that vomiting in a case of umbilical hernia with pain necessarily indicates strangulation. These large herniæ are very subject to attacks of incarceration.

tion or obstruction of a temporary character, and sometimes, though more rarely, to inflammation.

You can have but little difficulty in diagnosing whether a tumour of the umbilicus is a hernia or no ; the signs are sufficiently well marked to prevent a mistake, although the shape varies very considerably. I was once, however, sent for to operate in a case of supposed gangrenous umbilical hernia ; it was not a hernia, but there was good excuse for the mistake. The patient was an old man of seventy years of age, very feeble, admitted with a large tumour at the umbilicus, and a history of seven days' pain in the abdomen, constipation, and sickness. No definite history could be obtained as to the duration of the illness. The man was evidently very ill, and presented a rounded tumour at the umbilicus which was of a dusky red colour with cedematous skin. It stood out from the surface of the abdomen like a hernia with a broad attachment, and could just be covered by two opened hands. Further examination showed a dull area extending towards the pubes of some width, and a curious kind of splashing in the tumour. My opinion was that it had resulted in consequence of extra-peritoneal extravasation of urine following ulceration of the bladder. Incision gave release to a large quantity of gas and foul purulent urine, which had been pent up in a large cavity lined with sloughs. He died about five days later, and a post-mortem examination showed that the condition had resulted from extension of malignant growth of the bladder and the giving way of its sloughy base. The umbilical swelling was tympanitic.

The hernia described above comes through the abdominal wall near the umbilicus ; there are two others to be briefly mentioned which are found coming through the umbilicus. The one which is of most importance, clinically, is known as the infantile, and may be seen constantly in the out-patient department of any hospital. In this there is a swelling covered with normal skin coming through the weak cicatrix of the umbilicus. It varies a little in size and shape, never requires operation, and disappears in time, especially if kept in position by means of a flat pad and bandage.

The remaining is the congenital variety, which is distinguished from all other forms of hernia by the fact that

its coverings are made by the material which forms the cord. About the beginning of the third month of intra-uterine life the abdominal wall should close in from the sides and cover in the receding viscera. If this advance of the abdominal wall is delayed or arrested some of the contents of the abdomen will be left outside. We may then find a small projection into the base of the cord, so small that it is ligatured when the cord is tied, or a pear-shaped swelling of some size is seen to project at the umbilicus, or in extreme cases the deficiency of the wall permits of eventration. These forms of hernia are rare, but it is necessary to know of them and recognise them, for, in the first instance, ligature would prove fatal in most, whilst in the second early reduction of the hernia is imperative; the chief reason for haste being due to the fact that the covering of the hernia rapidly degenerates with the cord and decomposes, and the child dies from peritonitis within two or three days. Operative treatment has proved very successful in these cases, the hernia being treated as in the adult, but the whole of the amniotic covering being excised. In two cases in which I operated, the dried covering was with difficulty removed from the intestine, the peritoneal lining being adherent to it, and peritonitis had already commenced; both came under treatment some forty-eight hours after birth.

“FROM MY JOTTING BOOK.”

DO WE VARY IN WEIGHT AT DIFFERENT TIMES IN THE DAY?

BY W. W. WAGSTAFFE, B.A., F.R.C.S.

I HAVE been looking over some old note-books, or rather “jotting” books which I have been accustomed to keep for very many years, in fact ever since I was a student or house surgeon.

These “jotting” books contain many little memoranda of things I have seen or been told upon good authority and which have proved very useful to me at various times. In fact, there is no custom which I can more strongly recommend to all students, for among a mass of possibly useless notes are many which they will find of service at some time or other. Do men adopt this plan now-a-days?

Among the notes which I took when I was house surgeon, is a series of observations on body-weight at various times in the day. This was a curiosity to me at the time, but I am surprised to find it is probably more than a mere curiosity, for I cannot lay my hands upon any similar record. Many friends whom I have consulted upon the subject are equally in the dark about such observations occurring in any text-book.

I am quite conscious that the observations are not sufficiently detailed to be scientifically accurate. But they represent my own weight in the same clothes at various

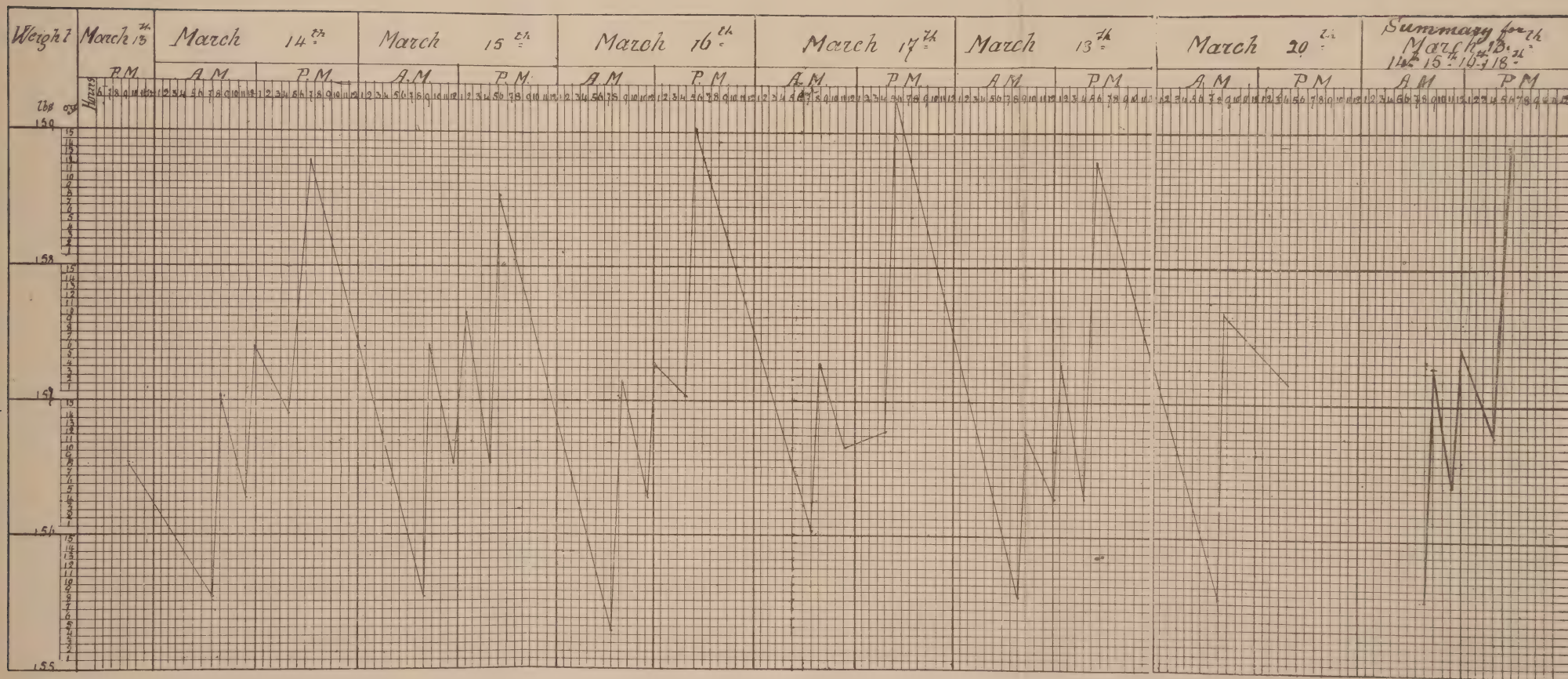
times in the day (six times) for a period extending over about a week.

It is strange how doctors, when they are settled in practice, are referred to upon every possible subject, and especially those which have a tinge of science about them. It is strange, too, to see what absurd fallacies occupy the popular mind. *A propos* of the subject of this paper, it has been seriously asserted by many people I have met that you are naturally lighter after a meal, and they have even gone to the length of explaining it by the amount of gas that is developed from food. These must be painfully windy people. It reminds one rather of the famous fallacy, said to have been submitted to the Royal Society, asking why a fish could be put into a basin brimful of water without making it run over.

In the following chart I have arranged the observations in such a way as I think will make them clear. Statistics are always painful unless the writer has the wonderful power of Mr. Schooling, who certainly can make statistics attractive. But perhaps the most convenient method is to look at the summary diagram first, and this shows what can be represented in figures without much difficulty.

Average.		lbs.	oz.		lbs.	oz.
9 a.m.	Before breakfast . . .	155	8	(losing	3	6 during night).
10 a.m.	After breakfast . . .	157	4	(gaining	1	12)
12 noon.	Before lunch, but after defæc.	156	6	(losing	0	14)
1 p.m.	After lunch . . .	157	6	(gaining	1	0)
5 p.m.	Before dinner . . .	156	12	(losing	0	10)
6.15 p.m.	After dinner . . .	158	14	(gaining	2	2)

By these it will be seen that we lose 3 lbs. 6 oz. between night and morning—that we gain 1 lb. 12 oz. by breakfast—that we again lose about 14 oz. before lunch—that lunch puts on an average of 1 lb.—that we again lose during the afternoon an average of 10 oz., but that an ordinary dinner to a healthy person adds 2 lbs. 2 oz. to their weight. What would be the result of a big dinner—it is easier to imagine than to describe. And yet on more than one day there was a difference of 2 lbs. 8 oz., but this is not very excessive considering that a pint of fluid weighs about 1 lb.



[To face page 344.



Now what are the greatest differences I have recorded? The greatest difference was between the night and morning of 3 lbs. 12 oz., and this may be accounted for by the natural loss of weight partly by the perspiration at night, which is variously estimated by different authorities at from 2 to 4 lbs., and partly by the natural loss of weight from obvious causes. It would be a simple course to weigh the excreta; but has this been done?

The foregoing are the average weights of a healthy man engaged in ordinary hospital work, but fuller observations are certainly wanted. I would suggest that those who have the charge of schools, or asylums, or such institutions, might very easily make a series of observations which would be of practical use and are evidently wanted.

Some very curious records of variations in body-weight at different times of the year have been given by a Danish observer; but these are what may be called periodic phenomena. If children be studied, and these are more closely related to the lower forms of animal and vegetable life than are adults, periods of growth, of fattening, and of equipoise are distinguishable. Mr. Hansen, of Copenhagen, from a very large series of observations on children, shows that there is an increase of weight from August to December, and a season of growth from April to August, and a period of rest both in weight and growth from December to April. These observations, however, do not touch the question which I have tried to make rather clearer—that of daily variations in body-weight in a healthy person.

If any one were careful to take similar observations in asylums, infirmaries, and hospitals, it is quite possible some difference might be found according to age; sex, and conditions of disease, and it is possible there might be a difference according to nationality. What has been learnt from the weighing of a fasting man at different times? And would not periodical weighing help to detect some of the malingerers?

I think it will be seen from the above that it is important to choose the time for weighing a recruit, or even a person submitting himself to life insurance.

Of course it would add to the importance and interest of

such a paper as this if one could give the weight of the excreta—solid, liquid, and vaporous; but I have submitted these rough notes rather as a suggestion, and hoping they may lead to fuller observations, which are wanted.

Tabular Statement of Weights.

Date.	Hour.	Remarks.	Weight in			Difference from previous entry.
			lbs.	oz. or	lbs. dec.	
1865						
March 13th	10 p.m.	—	156	8	156·5	
" 14th	8 a.m.	—	155	8	155·5	— 1·00
" "	9 a.m.	After breakfast	157	0	157	+ 1·50
" "	12 noon	Before lunch	156	4	156·25	— ·75
" "	12.50	After lunch	157	6	157·37	+ 1·12
" "	5 p.m.	—	156	14	156·87	— ·50
" "	7.30 p.m.	—	158	12	158·75	+ 1·88
" 15th	9 a.m.	Before breakfast	155	8	155·5	— 3·25
" "	9.45 a.m.	After breakfast	157	6	157·37	+ 1·87
" "	12.30 p.m.	Before lunch	156	8	156·5	— ·87
" "	2 p.m.	After lunch	157	10	157·62	+ 1·12
" "	5 p.m.	Before dinner	156	8	156·5	— 1·12
" "	6 p.m.	After dinner	158	8	158·5	+ 2·00
" 16th	8.30 a.m.	Before breakfast	155	4	155·25	— 3·25
" "	9.15 a.m.	After breakfast	157	2	157·12	+ 1·87
" "	12.15 p.m.	Before lunch	156	4	156·25	— ·87
" "	1 p.m.	After lunch	157	4	157·25	+ 1·00
" "	5 p.m.	Before dinner	157	0	157	— ·25
" "	6 p.m.	After dinner	159	0	159	+ 2·00
" 17th	8 a.m.	Before breakfast	156	0	156	— 3·00
" "	9 a.m.	After breakfast	157	4	157·25	+ 1·25
" "	12 noon	—	156	10	156·62	— ·63
" "	5 p.m.	Before dinner	156	12	156·75	+ ·13
" "	6 p.m.	After dinner	159	4	159·25	+ 2·50
" 18th	9 a.m.	Before breakfast	155	8	155·5	— 3·75
" "	10 a.m.	After breakfast	156	12	156·75	+ 1·25
" "	1 p.m.	Before lunch	156	4	156·25	— ·50
" "	2 p.m.	After lunch	157	4	157·25	+ 1·00
" "	5 p.m.	Before dinner	156	4	156·25	— 1·00
" "	6.30 p.m.	After dinner	158	12	158·75	+ 2·50
" 20th	9 a.m.	Before breakfast	155	8	155·5	— 3·25
" "	9.30 a.m.	After breakfast	157	10	157·62	+ 2·12
" "	5 p.m.	—	157	2	157·12	— ·50

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I am indebted to Dr. Acland for the above references, and to the kindness of Mr. Allmann for drawing out the accompanying chart.

SOME CASES OF AUTOMATIC WANDERING.

By W. S. COLMAN, M.D.LOND., F.R.C.P.,
ASSISTANT PHYSICIAN.

THE condition which is described under this title is one of those in which there is "dual consciousness." There is the individual's normal state, and an abnormal state which is quite distinct. The best known illustration is ordinary somnambulism. During the "abnormal state" the somnambulist may get up, walk like an ordinary individual, avoid obstacles even in a dim light, and even write or perform on a musical instrument just as a conscious person would. If aroused from this abnormal state he has no recollection whatever of what he has done; but there is some evidence, and this will be referred to later, that in subsequent abnormal states he may have some recollection of what happened in preceding ones.

One example of this in a somnambulist may be given :

E. D—, æt. 10 years, walked in his sleep one evening for the first time, and came down into the room where his parents were sitting. His mother scolded him for not having put his clothes on, but perceiving that he was asleep led him back to bed without waking him. A fortnight later he again walked, and in his somnambulistic state seemed to have some recollection of what happened

before, for this time he brought his clothes, but had neglected to put them on.

The phenomenon of dual consciousness is seen in some cases of delirium, in intoxication from Indian hemp and other conditions, but is perhaps best marked in the state known as "epileptic automatism." It is well known that just after an epileptic convulsion or even after a slight attack of *petit mal*, a patient, without recovering consciousness of his surroundings, may perform acts which are usually without reason, often grotesque and sometimes criminal, but which appear to a bystander to be purposive and deliberate, although the patient on recovering consciousness has not the slightest recollection of what has passed. Undressing in public, putting objects within reach, such as inkpots or brushes, into the pockets, or violent assaults on the nearest person are among the commonest examples. But in some cases the condition may last for hours, and the epileptic may wander off or even go by train after duly taking his ticket without appearing strange in his conduct, suddenly "waking" to find himself in some strange locality. Of all these varieties of post-epileptic automatism I have given instances in two papers in the 'Lancet.'¹

Cases of automatic wandering in non-epileptics exactly similar to these have been recorded chiefly in France, where they have been regarded as hysterical. Two cases have lately come under my observation in which this dual consciousness and automatic wandering have been strikingly exemplified, but, although neither had definite fits, an epileptic element can clearly be traced.

CASE 1. *Automatic wandering with unconscious period lasting three days.*—M. N—, æt. 35, sergeant-major in one of the Guards' regiments, was brought to me in September, 1896, by Major Sheldrake, R.A.M.C., for an opinion as to his mental condition. He was a man of excellent character, although he had been alcoholic when younger. At the time of the attack he was filling a post of responsibility at the Dépôt. He had had several attacks of slight mental

¹ July 5th, 1890, and July 21st, 1894.

depression lasting for a few hours for some months before. These attacks always came and went suddenly. He was married, and had six healthy children.

On Monday, August 9th, 1896, when in London, he had some disagreement with his wife. He remembers sitting down to his tea just afterwards, but has never been able to recall subsequent events. His wife states that he went to the drawer in which he kept his money, took some out, and abruptly left the house. Nothing more was heard of him until Thursday morning following, when his superior officer received a telegram from the north of Ireland from the missing man saying that he was returning. On his return he was placed under arrest for breaking his leave, previous to trial by court-martial. When I saw him he professed himself absolutely unable to recall anything which happened from the Monday evening to 10 a.m. on the following Thursday. He then "felt something give way in his head," and "waking up," as he called it, found that he was walking along a country road which was unfamiliar to him. He was much alarmed and at once retraced his steps, and after walking a mile came to the town of Newton Stewart in the north of Ireland. As his boots were clean he argued that he must have slept at a hotel, and he soon found at which of them it had been. There he was told that he had arrived the night before in an extremely tired condition, saying that he had walked from Londonderry (eighteen miles off). He at once sent off a telegram, which proves that he actually was at this town, and returned to London. The amount of money which he had spent corresponded with the expenses he would have necessarily incurred. What directed the course of his journey is a mystery. He had never previously been at Newton Stewart or Londonderry, and had no associations with either town, although he once lived for a short time at Belfast. When I saw him three weeks after the journey there was nothing unusual in his mental condition. He answered all questions quickly and brightly, and said that since the attack he had had no return of the attacks of mental depression. He was evidently much frightened and in great anxiety lest he should have another experience of the kind. The case was regarded as one of automatism

allied to epileptic automatism, the opinion being based on the sudden onset, the sudden recovery of his faculties, the purposeless character of his long journey, and the curious attacks of mental depression to which he had been subject before the attack. In consequence of the medical report he was liberated from arrest and invalided from the army on a pension.

He then became a clerk in the City. I saw him again in February, 1897. He had not been able to recall anything of the lost days: The attacks of depression had returned and were of the same intermittent character as before, and he was suspicious, imagining (possibly with some foundation) that his relations had been discussing the desirability of putting him in an asylum. He was, however, quite able to do his office work. I advised him to take twenty grains of bromide of potassium every night without intermission for some time. He did so, and the attacks of depression became much less frequent, and he unwisely left it off.

Second attack.—In October, 1898, when living in Battersea, again after excitement, a blank of five hours occurred. He “woke up” in Croydon High Street, where he had never been before, and he had to ask a policeman where he was. He was extremely footsore and tired, and had evidently walked there. On this occasion there was no snapping sensation on waking. Again the attack was preceded by numerous attacks of depression, while for six months after he was practically free. There is still no history of “*petit mal*.”

Of course the possibility of imposture or drunkenness will occur to every one. Imposture may probably be dismissed. The fact that the military authorities invalided him on a pension instead of dismissing him from the service showed that those who knew him best were of opinion that the attack was genuine, and afterwards his reluctance to talk about the attack and his haunting fear lest he should have another, as he actually had, quite convinced both Major Sheldrake and myself that he was not inventing. Drunkenness is equally improbable. He had for years had an excellent character in that respect, and since 1896 he has been steadily employed in a position of trust.

Although in this case there were neither convulsions nor attacks of *petit mal*, the periodical attacks of mental depression with their sudden incidence and equally sudden disappearance strongly suggest an epileptic element.

CASE 2.—A policeman, æt. 35, was sent to me by Mr. Warren Low. He was formerly in the Navy for twelve years, but never had any illness or injury during that time. During the last few years he had on one or two occasions attacks of giddiness with transient loss of consciousness. Each attack occurred when he was sitting in a barber's chair with his head thrown back in order to be shaved. There was said to have been neither struggling nor convulsion. He never had similar seizures at any other time. His temper had become hasty, and he had sudden attacks of causeless mental depression, accompanied once or twice by a suicidal impulse once when crossing Waterloo Bridge.

On November 13th, 1895, he came home from his work. He was confused, and when talking constantly changed the subject without finishing what he had been saying previously. He was excited because he had lost ten shillings. An hour after coming home he went out to look for the lost money, and he remembers passing the corner of the street. After that everything is a blank until 5 a.m. next morning, when he found himself on the deck of a steamer going down the Thames. He asked where he was, and was told he was on a steamer bound for Australia. The boat was then passing Gravesend, and he was sent ashore with the pilot. He found that he had only spent a shilling. He was told that when he first "woke up" he expressed his intention of "going on to Liverpool," a place to which he would have had no object in going. He himself remembers nothing except his anxiety to get on shore. He had a violent occipital headache and was extremely hungry. This man also had an excellent character for sobriety, and his hunger, while common after epileptic attacks, would probably have been replaced by loathing for food if his forgetfulness of the evening had been due to a drinking bout. The attacks of unconsciousness mentioned above, together with the occa-

sional sudden attacks of depression, almost certainly point to an epileptic element in the case.

The medico-legal importance of the possibility of such automatic wandering is obvious, but as a defence, unless very clearly proved, is usually contemptuously dealt with by magistrates, and it cannot be denied that in many of the cases in which a man has disappeared for a time and has denied any recollection of past events, the sequel has shown that there was some cogent reason for his sudden wanderings.

Although patients in their ordinary condition have no recollection of what has happened in these "abnormal states," there is some evidence that in the abnormal state they have some recollection of the previous one. There is no evidence whether there was anything in M. N—'s behaviour in the second attack which repeated what had taken place in the first, as he was not seen by the same people. But in other cases, notably one recorded by Prof. James ('Principles of Psychology,' vol. i, p. 391), the patient in the hypnotic state had perfect recollection of what had happened during the "abnormal state," and the statements were proved to be perfectly correct. An account of this case is given in my previous paper (the 'Lancet,' 1894, vol. ii). As M. N— is extremely neurotic, it would be hardly justifiable to hypnotise him merely for experimental purposes, but if on some future occasion he should again wander and it be of importance for him to prove where he had actually passed his time, it might be advisable to see if, when hypnotised, he showed any recollection of what his movements had been.

A CASE OF RECURRENT HYSTERICAL SLEEP TALKING.

BY HECTOR MACKENZIE, M.D.,
ASSISTANT PHYSICIAN TO THE HOSPITAL.

THE case I am about to relate is one which may appropriately be classified under the heading of hysteria. The age of the patient and the nature of the attacks from which she suffered have, however, a special interest. It is the only case of the kind I have met with, although during the twelve years which have elapsed since it came under my notice, I have been on the look-out for anything of a similar character.

The essential feature of the case consisted in the regular recurrence at a fixed time every afternoon of a condition of unconsciousness in which the patient went through a remarkable performance, repeating, with more or less accuracy, details of conversations she had heard during the day, reciting and singing little songs in rapid succession and with great animation, and waking up in about half an hour or an hour apparently quite oblivious of what had taken place. With the exception of having these attacks the child was in good health.

It will be observed that the attacks very rapidly ceased after the admission of the child to the hospital, although previously they had been regularly occurring for quite two months at home and although she had suffered from similar

attacks at a former period for three months. Preparation was regularly made by the mother for the attacks, and probably had the child remained at home they would have continued to occur for an indefinite time. The essential part of the cure was, no doubt, the removal of the child from her mother and her home surroundings, together with the total want of interest in the attacks displayed by the staff nurse.

The condition during the attacks in some ways resembled that produced by hypnotism, and unintentional suggestion on the mother's part had probably, in the first place, helped in the production of the attacks. The idea that the child was acting a part may be at once dismissed. Everything the child did and said during the attack was perfectly natural, and what took place was exactly what one would have expected to have happened if the child had been awake and quite alone, repeating to herself the remarks she had heard around her or carrying on a performance with her doll. It would have been, however, impossible for any ordinary child to carry out such a performance in the presence of strangers. While the parrot-like reproduction of remarks and conversations overheard by the child was very interesting, the presence of the child in the ward was almost as objectionable as that of a phonograph, and it was not surprising that the nurse should have been particularly anxious to bring the attacks to a speedy termination. It is a popular belief that subjects of mesmerism or hypnotism make disclosures such as this child would have made had there been anything to disclose. The existence of this belief forms the *motif* for the well-known drama of "The Bells." In that play Matthias is tortured by the idea that, under the influence of a mesmerist, he may reveal the secrets of his past life—his share in the murder of a Polish Jew. It is needless to say there is no real foundation for such a belief, and that such a reproduction during hypnotic sleep of actual events is unknown. No dependence could be placed on the truth of statements made in the hypnotic condition by the subject of hypnotism, but it is possible, although very unlikely, that some incriminating remark might be made.

Various observers (Lotze, Bérillon, Moll) have pointed out that some persons will answer questions and obey commands during sleep. This point was investigated by Speir, Armstrong, and Child ("Statistics of Unconscious Cerebration," 'Am. Journ. Psych.,' 1892). More than half of the women who talked in their sleep and more than a third of the men reported that they were able to answer questions when asleep, and the women more often than the men were able to answer questions on any subject, and not merely on that they were talking about.¹

Alice S—, a healthy-looking, well-grown, and well-nourished child æt. 9, was brought by her mother to St. Thomas's Hospital on March 3rd, 1887, on account of "fits" of daily occurrence. The history the mother gave me of the "fits" was peculiar, and I thought it would be well to have the child under observation in the wards in order to determine their exact nature. I accordingly admitted her under Dr. Bristowe's care in Charity Ward.

The history, as told to me by the mother, was somewhat as follows :

In May of the previous year the child had an attack of what the mother called St. Vitus's dance, but what a little inquiry clearly proved to be nothing of the kind. She was well during the day, but every evening about 5 o'clock she began to get drowsy and to talk "nonsense," and would throw her legs and arms about, the left side moving more than the right. After this she would remain in a drowsy condition, talking "nonsense" for some time, and then, about 7 o'clock, she would wake up quite well. She continued to have these attacks daily for some three months.

From August to Christmas she kept quite well, but after the Christmas holidays she again began to suffer from periodical attacks like the first.

The child, who was a great chatterbox, and knew as much about her illness as the mother, bore out her mother's statement. She told me that when 5 o'clock came her mother would get two chairs ready for her, on which she lay down

¹ 'Sleep,' by Marie de Manacéine. London : Walter Scott, 1897.

quite comfortably and went to sleep. She said her mother thought the second series of attacks was brought on through talking about a little girl in the cottage hospital with St. Vitus's dance.

There was no history of any illness except measles and whooping-cough when younger. She had not been overworked at school and was only in the second standard—not far on for her age. She had had no fright. The family history was good.

The child was admitted to Charity Ward in the morning, and I had intended to go up to the ward about 5 o'clock in the afternoon and see whether the "fit" which was then to be expected really came off, but I was otherwise occupied at the time. The "fit" did happen at the usual time, and quite unexpectedly as far as the nurses and the occupants of the wards were concerned, for I had not prepared them for it in any way. What happened was something as follows. About 5 o'clock the nurse on duty heard someone talking loudly in the ward, and found it was the little girl. When she came to her the child was saying:—"Nurse, that makes thirty patients. We must get another bed up. Bother Dr. Mackenzie!" a remark the ward sister might not unnaturally have made when the child made her appearance in the already well-filled ward. As the child continued talking and was evidently unconscious, the nurse sent for Dr. Evans, the house physician.

Dr. Evans noted as follows the condition of the child when he saw her:—"Lying on the back with the eyes closed, the eyelids occasionally quivering. Hands clenched, arms flexed and rigid. Talking loudly and rapidly, but not shouting. Occasional pauses between her sentences. Her words evidently reproductions of conversations which she has heard or might have heard as between her mother and Dr. Mackenzie, between two mothers concerning their respective babies, between several schoolmates, etc. Opening the eyes was resisted. No attention paid to suggestions as of a fire or a scene in the snow. Corneal reflex present. Pricking with a pin excites purposeful movements and finally crying. After a short pause she sang snatches of hymns, beating time with her right foot. The knee-jerks were

present. Legs held rigid. Tickling the soles of the feet excited first tonic flexion of the toes, then movements to avoid tickling, and finally a burst of tears, and acting on a suggestion made she remarked 'I've had enough.' She was then quite rational, and professed to have no remembrance of what had happened."

Next afternoon I arranged to be in readiness with Dr. Evans near the ward, in order to have an opportunity of witnessing an attack if one occurred. At the same hour there was a repetition of the performance of the previous day, and we were at once summoned to witness it.

As before the child was lying on her back with eyelids shut, talking loudly and rapidly. The following is a necessarily imperfect report of what we heard and witnessed, the only speaker throughout being the little girl.

[When we came to her she was carrying on the following imaginary conversation:]

"I never lied in bed so long before."

"What's the time?" "You must ask nurse."

"Say if you don't like it."

"Is there any men here?"

"No, they're all ladies and two little girls."

"What's your name?" (Pause.) "Alice Smith."

"What's the matter with you?" (Pause.) "Got the Vitus dance."

"Drink your tea."

"I couldn't eat my dinner; I don't eat much."

"Oh, look! there's a pretty book. There's some frogs in this book."

"Isn't this a pretty dolly?" (Pause.) "Yes, nurse."

"There's another lady come in here."

"What's the matter with her?" "Oh! she's sick."

"How did you know we had thirty patients?"

"Because you told me."

"Now we have thirty-one. There's a lot to look after!"

"I never will go to bed without saying my prayers."

"I've been in here longer than that lady in black with the spectacles."

"I forgets wot my children are like, I've been so long away."

"I shall be glad when I get back to school."

"How old are you?" (Pause.) "Nine."

"This lady sent you these cakes." (Pause.) "Thank you."

"Why don't you have bread and butter?"

"That house is on fire. Look at it."

[Here it was observed that the pupils were contracted and acted to light.]

"I didn't know this was upstairs."

"Can you plait up your hair yourself?" (Pause.) "No, nurse."

"I've got a lot of work to do now."

"What is the matter with you?" "My back aches."

[Here the child began to sing and performed rocking movements as in nursing a doll. The song commenced as follows:]

"Lullaby, dolly, how the time flies!

Dolly, dear dolly, it's time for you to be abed."

"I don't know any more. Shall I sing it again?" "Yes, dear, again."

"I shall go on till you go to sleep, dolly. Gone to sleep. She's asleep now. Mind you don't go woke up." [She again started her song.]

"Oh dolly, dear dolly, oh shut your blue eyes,

It's time for all little girls to be abed;

Lullaby dolly, lullaby dolly,

How the time flies, how the time flies!"

[This was repeated several times.]

"Oh, it was a time then. I had such a happy Christmas."

[Again she began to sing.]

"I wish you a happy Christmas,

Let all be merry and gay,

The church bells ring, and the children sing,

For this is Christmas Day."

"Now that noise has woke baby up."

[She now started her lullaby again, but in a very loud voice.]

"Lullaby dolly, how the time flies,

Lullaby dolly, how the time flies."

"What else?" (Singing.)

"Hallelujah! fal, la, la!

Oh crucified one! fal, la, la!

Hallelujah! la, la, la!

Oh God, the Father Almighty."

"That's for you to learn?" (Pause.) "I can't."

"Well, I never heard you speak before. I shall see you to-night."
(Singing.)

"There is a happy land, far, far away."

[In an explanatory tone.] "That's God's house in heaven."

"Now let me sing one of your songs." (Singing.)

"Oh where and oh where is my highland laddie gone?"

"That's all I know." (Singing.)

"Jenny my own true loved one,

I'm going far from thee,

Out on the bounding billows,

Out on the dark blue sea."

"Now I'll tell you all my little children at home. There's Aggie, she's fourteen, and Willie he's twelve, May she's ten, and Teddie he's seven."

"Sing a song of sixpence, a pocket full of rye."

[Here she began to nibble a piece of biscuit.]

"I'll fight you."

[Here she mimicked fighting.]

"Go and catch that there goat."

[Here she shouted a sound like "yoicks," pronounced as the breath is drawn in.]

"You don't walk in your sleep."

"Put her in the bath-room if she does."

"Bring them dogs out of the firs."

"Yoicks! yoicks!! yoicks!!!

[Here I asked her if she said donkeys, and she repeated,]

"Bring them donkeys out of the firs."

[Here she sneezed several times in rapid succession, and then resumed singing, but her songs became somewhat mixed.]

"Dolly, dear dolly, oh shut your blue eyes.

Oh crucified one, oh crucify my name, Hallelujah!

Oh, I say, I say, has magnified me."

[She then continued to hum a tune for some time. She next made rapid rowing movements.]

"Let me do something else. What shall I do then?" (Sings.)

"There is a happy land, far, far away,

Where saints in glory stand, bright, bright as day, etc."

The first verse of this hymn she sang several times.

[Here the soles of her feet were tickled, causing convulsive movements. She then recited.]

"Winter, winter, snowy winter,

Though thy days are cold and dreary,

Love and worth can make them cheery,

When the faggots brightly burn."

[And several more verses to the same effect, each verse being recited more vigorously than the one before.]

"Oh where and oh where is my highland laddie gone? He's gone. That t'aint it."

"There is a happy Christmas far away."

How much longer the performance would have gone on one cannot tell. It was here brought to an end by fanning the patient and blowing upon her.

When she woke up she appeared to be in her usual condition.

Somewhat to our regret we did not have an opportunity of seeing another attack. The nurse of the ward, who had a large experience of hysterical cases, thought she had had enough of the child's performances, and effected a rapid and thorough cure by telling the patient she would be drenched with cold water if she had another attack. Although the

child was kept for some time under observation nothing further happened.

The mode of cure successfully adopted by the nurse in this case closely resembles that of the schoolmaster in dealing with somnambulism as related by Dr. Hack Tuke (art. "Sleep," 'Dict. Psych. Med.')

"Shortly before the youthful somnambulist retires to rest his master calls him aside, and speaking in a firm and solemn tone says, 'I find you were out of bed and making a disturbance in your room last night.' 'Sir,' he replies, 'I was asleep, I know nothing about it.' Then the master replies, 'I will say nothing about it on this occasion, but such a thing must not occur again.' 'But, sir, I could not help it; I was asleep.' 'Well,' the master replies, 'you hear what I say. I would not advise you to let it occur again.' The schoolmaster added that in such a case the boy goes to bed probably feeling that he has been hardly dealt with, but with a motive for checking the tendency to somnambulism, and the motive continues to act during sleep. This method invariably proved successful."

With reference to the contraction of the pupils observed during the performance, it may be pointed out that this is the condition which is usually observed during deep sleep. The deeper the sleep the greater the contraction. In the deepest sleep, the pupils do not react to light. In this child the pupils, although contracted, did respond to the light stimulus. Marie de Manacéine observes that in the case of young children the pupils may be dilated during sleep, and at the moment of awaking it is certainly the rule for the eyes to be very much dilated even in the presence of a strong light. We may conclude from the state of the pupils in our case that the condition, while one of fairly deep sleep, was not one of the most profound forms of sleep.

A REPORT
OF
EIGHT CASES OF ADDISON'S DISEASE,
SOME OF WHICH WERE TREATED BY THE ADMINISTRATION
OF SUPRA-RENAL BODIES.

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THE following series of cases of Addison's disease appeared to be of sufficient interest to justify publication in the 'Reports,' although it is regretted that the clinical examination was not in all cases complete. Six of the cases came under observation at the hospital within a period of twelve months, a fact somewhat remarkable, seeing that for many years past the number of cases of this disease admitted to the wards rarely exceeded one in twelve months. The series consists of four males and four females. In all save one a post-mortem examination took place.

In six cases an attempt was made to treat the disease by the administration of supra-renal bodies. As in four instances the patients so treated were already in the last stages of the disease when admitted to hospital, and died shortly after, it is obviously unfair to attempt to draw any deductions from the failure of the treatment in these, so we may be content to give the following particulars concerning them. In one the attempt to administer the gland by mouth failed by reason of the patient's inability to retain anything in the stomach; in one the patient was fed with supra-renal for twenty days at the rate of one and a half sheep's glands daily; in one the patient was under observation for ten

days, and during that time received 90 grains of supra-renal. The fourth was under observation for fifteen days, and during that time took 1305 grains of supra-renal without the slightest benefit.

The two remaining cases were treated for longer periods, one living for 95 and the other for 121 days after admission. It is calculated that the first of these patients received 3255 grains of supra-renal body and the second received 7200 grains. No appreciable improvement took place. In particular, the pulse tension did not appear to be increased; but it is only fair to state that the tension was estimated by the finger, and not by a sphygmometer. It is true that sometimes for a few days the patients appeared to have improved, but these periods were always followed by a return to their former languid condition, and appear rather to be a part of the natural history of the disease than a result of the treatment adopted. Both patients complained much of pain and stiffness in the legs, and particularly in the knee-joints. There was no joint swelling, but in one there was slight grating on passive movement, and in the other a tendency to contracture. Bearing in mind the symptoms which sometimes result from overdosage of thyroid gland, one was inclined to think that possibly the supra-renal preparation was responsible for these pains, but Merkle is quoted by Byrom Bramwell as having observed the occurrence of very severe joint pain without swelling in the course of Addison's disease.

Since Schäfer and Oliver found that the active principle of the supra-renal body was not destroyed by artificial digestion, the administration of the gland by mouth in cases of Addison's disease has been assumed to be theoretically correct. The method of preparation adopted at St. Thomas's Hospital is as follows:—Perfectly fresh supra-renal bodies from sheep are obtained. The outer parts, which consist of a firm fibrous capsule, and weigh nearly a quarter of the whole, are first removed. The remainder, which includes some of the cortex and the whole of the medulla, is then intimately mixed with powdered tragacanth and 1 per cent. of salicylic acid added for preservation. The resulting mass resembles sausage-meat, and is put up in capsules, each of

which contains the equivalent of 15 grains of supra-renal body. Liquorice powder was first used in place of the tragacanth, but discarded on account of the tendency of the mass to become mouldy. It will be noticed from the record of the cases that in some instances this preparation was administered by the rectum. It is, however, not unanimously agreed that the physiological effects of the supra-renal substance can be obtained by exhibition by the stomach or bowel, for Vincent could produce no reaction in rabbits and dogs by large doses of supra-renal substance, and O. F. F. Grünbaum was unable to raise his own blood-pressure by taking supra-renal extract by the mouth. Bearing these facts in mind, we consider that it would at least be well to give the method of hypodermic injection a further trial. The great difficulty with this method of administration is the preparation of an absolutely sterile and, at the same time, potent preparation.

The red blood-discs were counted in three of the cases with the following results. In Case 3, a man who died fifteen days after admission, and was therefore in an advanced stage of the disease, the count showed 5,468,750 red cells per c.mm. In Case 5, a woman, eleven weeks before death the red cells were 3,850,000 per c.mm. and the hæmoglobin 56 per cent. In Case 6, also a woman, the count three months before death showed 5,000,000 red cells per c.mm. These figures quite bear out the statements of modern authors that anæmia, if present at all in Addison's disease, is of only moderate severity, and particularly emphasise the importance of a careful blood examination in the differentiation of these cases from those of pigmented pernicious anæmia, which frequently bear such a striking resemblance to them both in appearance and symptoms. It is very significant that Addison discovered the disease which bears his name whilst he was searching for the cause of pernicious anæmia.

Pigmentation of the mucous membrane of the mouth was present in four only of the cases here recorded. This pigmentation always consisted of light brownish smears situated just within the angles of the mouth; but, in addition, in one instance there were black specks in the mucous mem-

brane similar to those often seen in the skin in this disease. In one patient the mucous membrane of the lips was also darkly stained. All the cases which presented buccal pigmentation showed also very definite pigmentation of the skin, whilst in three of the four in which buccal pigmentation was absent the pigmentation of the skin was exceedingly slight.

Particular attention was paid to the presence of moles and pigmented spots as of possible value in diagnosis. In six of the cases specks and moles were present, and were mostly distributed on the face and neck. In one instance small black spots were present on the forearms, and, as mentioned above, they were once present on the mucous membrane of the interior of the mouth.

It is notoriously difficult to fix the duration of Addison's disease on account of the insidiousness of its onset. It is probable, therefore, that the history of only three days' illness obtained in Case 7 is erroneous. The case is nevertheless remarkable on account of its acute character. The longest history obtained was that in Case 8, where two years was said to be the period. The average duration of the disease in hospital patients is said to be probably about two years, and in patients living under more favourable circumstances Byrom Bramwell considers that a duration of five or six years may not be uncommon.

The supra-renal bodies were caseous in five of the seven cases in which a post-mortem examination was obtained. In one case the bodies were fibrous and atrophied, whilst in Case 3, although they were evidently diseased, there was no naked-eye evidence of tuberculosis. It will be seen from the report that a healthy guinea-pig was successfully inoculated with tuberculosis from the supra-renals of the last-mentioned case. This fact is of extreme interest, and I am indebted to Dr. Colman, at whose instigation the investigation was undertaken, for permission to include it in this account.

The following table was compiled with a view to testing Byrom Bramwell's statement that a deficiency in the weight of the heart is a common thing in cases of Addison's disease. The weights of the normal viscera at the ages mentioned are taken from the post-mortem room chart in use at the hospital (from Dr. Boyd's figures).

	Heart.	Liver.	Kidneys.	Spleen.	
Normal male, age 7-14	oz. 4.25 + 5	oz. 34.71 37.75	oz. 6.58 + 7	oz. 3.03 + 3.75	No recent tubercle; caseous supra-renal.
Male, age 14. Addison's disease.					
Normal male, age 14-20	7.61 - 5	57.76 - 44	9.34 + 9.5	5.19 + 7.5	Old empyema; supra-renal swollen and translucent; tuberculous.
Male, age 18. Case 3					
Normal female, age 14-20	8.46 - 7 - 8	54.33 - 52 - 46	9.09 + 11 + 12	4.68 + 9.5 - 4	No recent tubercle; caseous supra-renal.
Female, age 18. Case 7					Old and recent pulmonary tuberculosis; caseous supra-renal.
Female, age 20. Case 4					
Normal male, age 30-40	11.36 - 9.5 - 6.5 - 7.5 - 7.5	58.11 - 50.5 - 53.5 + 61 - 44	11.35 + 13 + 18 ... - 8	7.12 + 9.25 + 8.5 7.25 - 3.5	Active tuberculosis; caseous supra-renal.
Male, age 30. Case 1					No active tuberculosis; caseous and calcareous supra-renal.
* Male, age 34					Slight tuberculosis in liver near adrenal; caseous supra-renal.
Male, age 34. Case 8					No recent tuberculosis; atrophied supra-renal.
Male, age 39. Case 2					
Normal female, age 40-50	9.6 9.5	49.03 - 37.5	8.8 - 7	5.04 + 7.5	Mitral stenosis; no recent tuberculosis; caseous supra-renal.
Female, age 47. Case 5					

* For report of this case see 'St. Thomas's Hospital Reports' for 1895, p. 257.

A minus sign has been prefixed to those viscera which were below normal weight and a plus sign to those above normal weight. The deficiency in weight of the heart is striking, but almost equally so is the increase in weight of the kidneys and spleen, even in those cases where there was no active tuberculosis at the time of death.

CASE 1. *Addison's disease; pigmentation of skin and buccal mucous membrane; caseous supra-renal bodies; pulmonary tuberculosis and tuberculous peritonitis.*—J. C—, æt. 30, labourer. Admitted February 24th, died February 28th, 1898.

The family history was good; no evidence of phthisis was obtained.

The patient considered himself a fairly healthy man until four months before admission. About this time he was laid up for five weeks with "inflammation of the bladder and bowels," but no further details of this illness were obtained. He had since noticed gradually progressing weakness with darkening of the skin. He was unable to keep down his food, and thought that his urine had diminished in quantity. He also noticed loss of flesh, and this he attributed to insufficient nourishment on account of his vomiting.

On examination the patient was found to be much emaciated and "bronzed" in different parts of the body. The pigmentation was most noticeable on the forehead, in the axillæ, and on the calves. On the abdomen it was present but only slight; also the mucous membrane of the left cheek was stained yellowish-brown, and showed a few fine black specks. The percussion resonance over the lungs was not impaired, but friction sounds were audible along the right sternal margin, and posteriorly numerous crepitations and rhonchi were heard. The area of cardiac dulness was not increased; the heart's impulse was in the fifth intercostal space, half an inch internal to the nipple line. A loud and rough systolic murmur was heard all over the front of the chest, and also conducted into the left axilla and to the angle of the left scapula.

The abdomen was rigid; its movements were slight and it was generally tender, but especially so in the loins. No enlargement of the liver or spleen was detected, neither was free fluid found.

The extremities were much wasted.

The pulse was rapid and feeble, rate 120. The breath was foul, the lips dry and black, and the tongue tremulous. The bowels were much confined. The urine con-

tained neither albumen nor sugar. The temperature was 101° F.

The bowels were relieved by enema. The temperature remained slightly raised, and the patient died three days after admission. The treatment consisted of stimulants, bismuth, and hydrocyanic acid. No supra-renal gland was administered.

At the post-mortem examination the peritoneal cavity was found to be partially obliterated by recent adhesions. About three pints of fluid were contained in loculi. Opaque greyish tubercles were scattered over the intestines, and finer miliary tubercles covered the parietal peritoneum. The supra-renal glands were both entirely caseous. There was no evident disease of the liver or kidneys. The spleen was slightly enlarged. At the lung apices caseous tubercle and fibrosis was found, whilst elsewhere in the lungs miliary tubercles were scattered. No visible tuberculosis of the bronchial glands. The air passages and the larynx appeared normal. The heart was natural in size and external appearance; there was considerable thickening of the mitral flaps, but no obstruction.

CASE 2. *Addison's disease; pigmentation of skin but not of buccal mucous membrane; atrophied supra-renal bodies; obsolete tuberculosis of lungs; pleural adhesions.*—G. F. P—, æt. 39, engine driver. Admitted April 14th, died April 18th, 1899.

The patient's father died of "bronchitis," two of his brothers were also dead, one dying of consumption. His mother has been mentally afflicted. Two brothers and two sisters were alive and well. The patient had always been a healthy man. He was a moderate drinker, and had never had syphilis.

Twelve months before admission he had suffered from an attack of influenza and had never been well since, feeling weak and losing weight to the extent of 2½ or 3 stone. Vomiting after food commenced six or seven months before admission to hospital, and with the exception of a month's remission in January had persisted. He noticed also considerable pain in the belly, and thought that this pain was

relieved by the vomiting. Although naturally a dark-complexioned man, he was sure that he had become much darker during the last six months. His chief complaints when he presented himself were sickness, headache, giddiness, and low spirits.

On examination the patient appeared anæmic and wasted. His weight was only 8 st. 8 lbs. The skin was everywhere of a dark brown colour, especially on the lower part of the abdomen, on the face and on the legs. There were no moles, neither was there any pigmentation in the mouth. Respiration was slow and regular, the chest movements were free. The lungs were everywhere resonant to percussion, and the breath-sounds faint but healthy. The cardiac area was not increased, but the heart-sounds were almost inaudible and the impulse imperceptible. The pulse was 76 per minute, feeble, and very small.

The abdomen was rigid and slightly distended; the liver and spleen did not appear to be enlarged; there was no local tenderness and nothing abnormal to be felt.

The tongue was clean and the bowels were constipated. The patient had suffered from piles, and had occasionally passed a little bright blood with his motions.

The urine was acid and of sp. gr. 1015. It was clear, light-coloured, and contained no albumen.

The patient constantly vomited after all food, and his asthenia increased. The temperature was continuously subnormal. The treatment adopted was injection of strychnine and use of brandy freely. Death occurred on April 18th, the temperature then being 95° F. The pulse was almost imperceptible throughout.

Post-mortem examination.—The supra-renal bodies had almost completely vanished, the right being represented by some brownish substance which resembled somewhat in appearance supra-renal body, whilst in the situation of the left all that was found was a small knot or scar. The surrounding connective tissue had no appearance of thickening, and the semilunar ganglion and its branches when dissected out appeared to be quite healthy; there was certainly neither adhesion nor compression. The abdominal and mesenteric glands appeared healthy. One of the medias-

tinal glands showed an appearance resembling tubercle, and a few pigmented obsolete tubercles were found scattered through the lungs. Pleural adhesions existed over the upper parts of both lungs together with a few small nodular thickenings of the visceral pleura, but no recent tubercles. The air passages were normal. The myocardium was pale and flabby. There was no evidence of disease of the other viscera.

CASE 3. Addison's disease ; pigmentation of skin and of buccal mucous membrane ; old empyema ; supra-renal feeding by mouth and by rectum ; supra-renals enlarged and translucent.—C. B—, æt. 18, decorator. Admitted April 21st ; died May 6th, 1899.

The patient's mother died of consumption when he was three years old. His father suffered with "paralysis" twelve months ago, but recovered and resumed his work. Two brothers and one sister alive and well.

With the exception of eczema of the neck the patient was healthy until the present illness commenced.

The illness for which the patient was admitted was apparently of about seven months' duration, being considered by the patient to date from October, 1898, when he had a definite attack of giddiness whilst at work ; this attack was followed by vomiting. It, however, transpired that the patient had suffered from slight attacks of giddiness during the summer months of the same year. After the attack in October he was laid up for five weeks, feeling quite unfit for work, and indeed immediately he attempted to resume his occupation the giddiness and vomiting recurred. He went to a convalescent home at Brighton, but soon had to return on account of a bad relapse. He was now unable to retain even milk or Benger's food, and noticed that the vomiting mostly had relation to the attempt to take food. He suffered more than ever from attacks of giddiness, which frequently lasted for thirty minutes at a time and terminated often in vomiting. The bad symptoms were, however, not continuous, as there would be intervals of considerable improvement, again followed by relapses. He complained of no pain, but since October had noticed a brown rash on the arms, neck, and chest.

On admission the patient was emaciated, and his languor extreme. The skin was everywhere of a dark brown tint, but especially so on the face, neck, axillæ, and abdomen. The pigmentation on the abdomen was more or less limited by a slight edge, concave upwards, crossing the xiphoid and extending as high as the nipple line in the axillæ. The skin all over the back was very dark, and also in the groins and in the flexures of the elbows and knees. There were several small pigmented moles on the neck, some of them being quite black, and some darkly pigmented spots could be seen on the cheeks and ears. On the back of the right upper arm were some brown stains like a fading rash, and similar stains were seen on the sides of the thorax. Some brown stains were present on the mucous membranes of the mouth opposite the teeth, and also on the inner surfaces of both upper and lower lips.

The chest moved freely and equally on both sides; there was no impairment of percussion resonance, and the breath-sounds, although faint, were healthy. No adventitious sounds were present.

The cardiac impulse could not be felt, but the area of dulness was of normal extent. The heart-sounds were feeble, and unaccompanied by murmurs. The pulse was 96 per minute, the vessels small, and the tension very low.

The belly was flaccid and its movements free. With the exception of some deep tenderness below the costal margins nothing abnormal was found. The area of liver dulness was of normal extent, and neither that viscus nor the spleen could be felt.

The reflexes were normal. There was no optic neuritis or retinal hæmorrhage. No tenderness of the long bones.

The temperature was normal. The urine was acid, its sp. gr. 1018, its colour amber yellow, and it contained no abnormal constituents.

The patient was drowsy and apathetic until roused, but then conversed intelligently. He vomited once only in the twenty-four hours following admission, retaining milk taken in small quantities. For twenty-four hours he was treated with subnitrate of bismuth in 20-grain doses t. d., and then given three 5-grain supra-renal tabloids thrice daily.

On April 23rd he vomited again, this time after his dose of supra-renal. He appeared to be recovering from his extreme languor on admission, which was probably in part due to the effects of his journey.

On the morning of the 24th the red cells of the blood were counted and found to be 5,468,756 per c.mm. He vomited again, and the dose of supra-renal was doubled. He was still very drowsy, sleeping on and off all the time, but was easily roused. The pulse rate varied from 70 to 80, and the tension was still very low and the vessel small.

Strychnine was administered at first by mouth and then hypodermically. Rectal feeding was resorted to to control the vomiting, which was increasing in frequency, and on April 28th the dose of supra-renal was increased to 30 grains of fresh gland as prepared at the hospital and given thrice daily by mouth.

On the 30th the supra-renal was first given by rectum, and well retained. Vomiting was variable.

On May 2nd the dose of gland was increased to 60 grains three times a day.

On May 3rd the vomiting ceased. The patient appeared darker, and was complaining of pains in his knees, whilst the lower limbs felt numb. The general weakness was increasing fast.

On the evening of May 5th the temperature, which had hitherto remained slightly subnormal, began to rise, reaching 102.6° the next day. The pulse became imperceptible, diarrhoea set in, the bowels hitherto having been constipated, and the patient quietly died. During observation the amount of urine passed daily averaged a little over thirty ounces, and the excretion of urea was very much diminished.

Post-mortem examination.—The peritoneal cavity appeared normal. Owing to the absence of fat both supra-renals could be easily seen on raising the liver. They were enlarged and hard; the right was three times and the left twice the size of the normal body, but they preserved the natural shapes of the organs. Externally they were of an opaque yellow colour. On section the normal division of

cortex and medulla could be recognised. The medulla was dull and translucent, but there was no trace of pigment in either organ. There were scattered spots where the tissue was more opaque than normal, but no definite tubercles could be seen. The capsules of the bodies were thickened and easily peeled off the cortices. The retro-peritoneal glands were not tuberculous. The tissue of the supra-renals was exceedingly tough.

Both pleuræ were uniformly adherent, and there was a small dried-up empyema at the left base in the form of putty-like material densely enclosed in adhesions. A small cretaceous nodule was also found between the lung and the diaphragm on the right side. At the apex of the upper lobe of the right lung was a small white nodule the size of a pea; its character was doubtful. With this exception the lungs appeared healthy, and there was no tuberculosis of the bronchial or mediastinal glands. There was nothing particularly noteworthy in the other viscera.

Two healthy guinea-pigs were inoculated with the supra-renal bodies from this case. One of the animals died on the second day after inoculation with a local purulent infection. The other died seventy-nine days after inoculation with tuberculous infection of the lymphatic glands, liver, spleen, and lungs. Tubercle bacilli were found in stained sections of the animal's liver, but an attempt to cultivate the caseous pus from the inguinal glands on glycerine-potato failed. A few tubercle bacilli were also demonstrated in sections of the supra-renal bodies from this patient.

CASE 4. *Addison's disease; obscure case; slight pigmentation of skin and none of buccal mucous membrane; caseous supra-renal bodies; old and recent pulmonary tuberculosis; old pleural and recent pericardial adhesions; caries of spine; supra-renal feeding.*—G. B—, female, æt. 20, school teacher. Admitted December 22nd, 1898, died January 1st, 1899.

No family history of phthisis could be obtained. When between ten and thirteen years of age the patient was treated at a hospital for spinal curvature; for this she wore a plaster jacket for some time. She had also suffered from

measles, chicken-pox, mumps, rheumatism, and shingles. The latter disease occurred two years before admission, and the site of the eruption was unfortunately not noted. The catamenia were regular, but the girl was not strong, and always knocked up at the end of a school term.

The present illness was supposed to have commenced on December 13th, when she vomited all day long and felt very ill. Since this she had vomited on an average three or four times a day, not necessarily after food. For three or four days before admission she had experienced pain in the epigastrium. There was never hæmatemesis. The bowels were confined.

On admission the girl was somewhat emaciated, of a florid complexion, but evidently very weak and ill. There was no evidence of any disease of the lungs, the percussion resonance and respiratory movements being good and the air entering freely. The cardiac area was normal in extent and there were no murmurs. The heart-sounds were faint and the pulse feeble. The abdomen was retracted and felt doughy; on the right side above the level of the umbilicus was slight resistance with tenderness. There was some deformity, resulting from spinal caries in the lower dorsal region. The nervous system was normal; no albumen or sugar in the urine; temperature on evening of admission 101.2° F.

During the twenty-four hours following admission the patient vomited twice; the vomit was greenish in colour. The bowels acted normally. The pulse continued very small and weak, pulse rate about 120. The patient complained of great languor and looked ill. She did not sleep without hypnotics, morphine, chloralamide, and sulphonal being used in turn. The tenderness on the right side of the abdomen, combined with the slight curvature of the spine in the lower dorsal region, gave rise to a suspicion of psoas abscess, but this could not be confirmed. The temperature was febrile, but rarely reached 100° F., the maximum being usually, but not always, in the evening. It was noticed that although the patient was so languid, yet she immediately roused when spoken to, and readily and intelligently answered questions put to her. The continued

vomiting and languor now gave rise to a suspicion of Addison's disease, and further minute examination confirmed this opinion. There was a considerable brown staining of the skin of the upper lip, and this she said she had noticed for five months, and had consulted a doctor about it, receiving some ointment. Since being in hospital she had for the first time noticed several small black spots, like moles, on her face and forearms. There was a very evident splash of brownish-yellow pigmentation on the neck, just below the chin. The flexures of the elbows were also very dark. The vomiting continued, and as peptonised milk failed to stop it, rectal feeding was resorted to.

On December 30th supra-renal treatment was commenced, 15 grains of the hospital preparation being administered by mouth three times a day. The patient became progressively worse, the extremities being cold and the pulse exceedingly feeble. Death occurred from syncope on January 1st.

Post-mortem.—The body was well nourished, there being a thick layer of subcutaneous fat and much fat in the great omentum. In addition to the pigmentation already described there was considerable brown discoloration of the perinæum and of the skin on the inner sides of the thighs. The inside of the mouth was not at all pigmented.

The œsophagus was stained a greenish-yellow in its lower two thirds. The stomach was normal, and the intestines showed no sign of pigmentation or ulceration. The pericardium was universally adherent to the heart, but the adhesions were soft and easily separable by a sweep of the finger, leaving two roughened surfaces. The heart was not dilated; all the valves were competent and the great vessels were not diseased. The myocardium was thin, pale, and soft. The pleural sacs were quite obliterated, and the lungs had to be cut out. The air passages were healthy. The apices were both scarred, and showed tuberculosis both old and recent. There were some old cavities, small and smooth-walled, with much surrounding fibrosis. In addition, clusters of small miliary tubercles were found, chiefly in the upper lobes. There was slight calcareous deposit. The bronchial glands were not enlarged. The liver, which

was small and pale, was closely bound down by adhesions. The spleen was large and firm; it was also bound down by a few firm adhesions. The portal system with the gall-bladder and larger bile passages were healthy. The kidneys were somewhat engorged with blood, and a few yellow striæ were found in the cortices. The capsules stripped easily and cleanly.

Each supra-renal was enlarged about one third, and so closely adherent to the surrounding matted tissues that it had to be dissected out. On section the glands were found to contain numerous islets of caseous tissue, some of which were nearly half an inch across. There still remained an appreciable amount of pale glandular tissue around the caseous deposits. The semilunar ganglia were not identified.

There was no infection of the peritoneum. The appendix vermiformis and the pelvic viscera were normal. The bodies of the lower dorsal vertebræ were extensively caseous. There was no psoas abscess. The spinal cord was not examined, and permission to open the head was refused.

CASE 5. *Addison's disease; pigmentation of skin, buccal mucous membrane, and lips; caseous supra-renal bodies; old pleural and peritoneal adhesions; mitral obstruction; supra-renal feeding.*—I. C—, æt. 47, laundry-maid. Admitted June 1st, died September 30th, 1898.

The patient's father died at the age of seventy-three from cancer. Mother died at seventy-two years, cause unknown. Two brothers and one sister living and healthy.

The patient had enjoyed fair general health. Fourteen years ago she suffered from pleurisy, and in the following year had a slight attack of rheumatic fever. Nine months before admission she had another attack of rheumatic fever, and since that had been quite unfit for work, feeling languid, having no appetite, and often vomiting. For ten weeks before admission she had vomited daily, and for eight weeks had been confined to her bed. She complained particularly of pain in the small of the back with frequent exacerbations. For quite nine months she had noticed discoloration of the skin, which was said to vary in intensity but had recently become more marked.

On admission the skin of the whole body was of an uniform dark brown colour, that of the face being, however, lighter, and that of the legs darker than the rest. A darker patch over the cardiac area corresponded to the place of application of a mustard plaster a few weeks previously. Numerous small moles of an intensely black colour were scattered over the body ; these had been getting much darker. Pigmentation was more marked over the elbows and knees than elsewhere on the limbs. The mucous membrane of the lips was of a brownish tint, and the inner sides of the cheeks, near the angles of the mouth, showed symmetrical pigmented patches of a brown colour. The chest was badly formed and the respiratory movements not full, the left side moving more freely than the right. The supra-clavicular fossæ were both hollow, and the right side of the chest was flattened just below the clavicle. The percussion note over the lungs was thought to be impaired, and many rhonchi were scattered about both in front and behind. There were no crepitations. The area of cardiac dulness was not enlarged, and the impulse was just internal to the left nipple line. A short pre-systolic murmur followed by a sharp first sound was heard near the apex. The second sound was accentuated in the pulmonary area. Over the lower part of the sternum a long blowing systolic murmur was present. There was slight epigastric pulsation. The pulse was 108 per minute and easily compressed. The belly was rather rigid. Neither liver nor spleen appeared to be enlarged. The left shoulder-joint and the knees were stiff, movement being accompanied by slight creaking. There was no evidence of disease of the spinal column. The knee-jerks were normal. The urine had a sp. gr. of 1020 and contained a trace of albumen.

After a week or ten days in bed the systolic murmur disappeared, but the condition was in other respects unaltered. The pulse varied in rate, but was always of low tension, and rarely faster than 100. The albuminuria subsided and vomiting did not occur.

The patient commenced taking the hospital supra-renal preparation on June 6th, the dose being 15 grains three times a day. After June 20th the dose was given four

times daily, and finally after July 11th six times daily. The only effect was that the patient expressed herself as feeling more comfortable.

A blood examination on July 14th showed hæmoglobin 56 per cent., red cells 3,850,000 per c.mm. The patient had lost two pounds in weight since admission. The stiffness of the legs diminished under daily massage.

On August 4th pancreatic emulsion was added to the treatment, in doses of two drachms twice a day.

On August 27th the patient got up for the first time and vomited slightly. The pigmentation had apparently increased.

On September 19th the patient again commenced to vomit, appeared much weaker, and could only with difficulty be induced to take her food. She slowly and steadily lost weight.

Death occurred quite suddenly on September 30th.

During the whole time of observation the temperature was but little above normal. For the last few days of life she was fed by the rectum.

Post-mortem examination.—The body was emaciated and very much pigmented. The right pleural sac was completely obliterated by adhesions; the dome of the left pleura was also thickened and somewhat adherent to the lung. A few fibrous knots were found embedded in the damaged pleura; these were probably the remains of tubercles. The lungs were dry and short of air, but there was no evidence of tuberculosis. The left auricle of the heart was twice the normal size, but with this exception the heart was rather small. The aorta was healthy in appearance; the aortic valves were generally thickened but competent. The left ventricle was small, and the mitral valve was converted into a thick-walled funnel which only just admitted the forefinger. The left auricle was hypertrophied as well as dilated, and its endocardium much thickened. There was no tricuspid lesion. Both supra-renal bodies were extensively diseased. The right was much enlarged, universally adherent to surrounding structures and caseous throughout; it contained a small abscess. The left was equally adherent, but smaller and much more fibrous than

the right ; this also contained caseous masses. On the left side was a small psoas abscess which barely reached the brim of the pelvis. No disease of the spinal column or of the pelvic bones was found. It was thought that the abscess possibly originated in connection with the supra-renal on this side. The liver was closely adherent to the anterior abdominal wall as the result of peritoneal inflammation ; the spleen had similarly become bound down. No other lesions were found. The brain and spinal cord were not examined.

CASE 6. *Addison's disease ; pigmentation of skin and buccal mucous membrane ; delusions ; supra-renal feeding ; no autopsy.*—L. G—, æt. 34, female, married. Admitted September 20th, died December 24th, 1898.

The patient's mother died of phthisis. Father alive and well. She had five brothers and sisters, all living, and four children, the youngest seven years of age, all alive and healthy.

When seven years of age she suffered from rheumatic fever. Had influenza and bronchitis eight months before admission. Catamenia regular since last confinement.

The patient came to hospital complaining of "bilious attacks." Her dusky complexion at once attracted attention, and on inquiry it was found that she had been growing darker for four months, and that for the same period she had grown weaker and become unable to attend to her work. She had been subject to nausea and vomiting both after food and at other times. Her "bilious attacks" consisted of attacks of hemicrania with pain at the back of the eye and vomiting. She had been liable to these as long as she could remember, but they had lately increased in frequency. There had been considerable loss of weight. A year ago the patient weighed 12 stone, but on admission only weighed 7 st. 1½ lbs. Her waist measurement during the same period had decreased ten inches. She made no complaint of abdominal pain.

The patient was of fair complexion with blue eyes. Her skin was darkly pigmented on the face, hands, and knees. There were several darkly pigmented papillomata about the face and shoulders. Some dark brown patches were

found on the mucous membrane of the mouth near the angles.

The chest moved well and equally on the two sides. The breath-sounds were quite normal. The cardiac area was slightly encroached upon by the lung. At the apex of the heart was a distinct presystolic murmur. The abdomen appeared normal; the liver was not enlarged and the spleen could not be felt. The pulse was 106 and very feeble. A blood count showed over 5,000,000 red corpuscles per c.mm. The urine was acid and contained no albumen, sp. gr. 1017.

The day after admission the patient vomited. Treatment with supra-renal capsules was commenced on September 23rd, 15 grains of the hospital preparation being given twice a day. As the sickness continued bismuth was given in addition. On October 12th acute pain in the knees and elbows was complained of. There was no rise of temperature and no obvious swelling of the affected joints. The pains were relieved by salicylate of sodium. Chloroform of belladonna was applied locally. The vomiting, which up to this time had been occasional, became worse, so that the patient retained but little food. She was sleepless and subject to delusions. On October 17th, after twenty-three days' treatment, the supra-renal preparation was discontinued and the patient isolated. Her mental condition improved and she slept better, but still remained suspicious and inclined to weep. The pulse was still very feeble; there was no albumen in the urine, and the sickness improved.

Supra-renal treatment was resumed on October 27th, 15 grains being given three times a day. The patient was with great difficulty induced to take her food; she vomited often, and remained very depressed. Early in November she improved slightly. There was a tendency to contracture of the knee-joints, and it was thought that the pigmentation became a little more marked, especially around the waist and at the backs of the shoulders. No evidence of disease of the lungs was ever obtained. From this time the patient showed but little change until her death, which occurred quite suddenly on December 24th.

No post-mortem examination was allowed.

CASE 7. *Addison's disease; slight pigmentation of skin only; rapid course; caseous supra-renal bodies breaking down; diagnosis only made at autopsy.*—E. W—, general servant, æt. 18. Admitted August 5th, died August 6th, 1899.

The only history obtained was that the illness commenced three days before admission.

The patient was somnolent and difficult to rouse. The mouth was dry and fissured, there were sordes on the teeth, the fauces were clogged with tenacious mucus, and the breath was very offensive. The respiratory movements were free, and there were crepitations heard at the lung bases posteriorly. The area of cardiac dulness was normal, the heart-sounds were distinct, and there were no murmurs. The abdomen was flaccid, not tender, and neither the liver nor the spleen appeared to be enlarged. The knee-jerks were not obtained; plantar reflexes present. Temperature on admission 98.4° F.; pulse 120, small; resp. 20.

A culture from the throat contained no diphtheria bacilli.

At midnight the temperature rose to 102.2° , and the next day the patient died.

Post-mortem examination.—The body was well nourished. The skin was generally dark, and scattered about the body and limbs were a fair number of small spots in which the pigment was more concentrated. There were no localised patches to which the term “bronzing” could be applied. The mucous membrane of the mouth was closely examined, and not found pigmented. The lungs were both deep red in colour and in a semi-consolidated condition from hypostatic pneumonia. Two cretaceous nodules were present on one pleural surface, and two bronchial glands had also undergone cretaceous change. The lungs themselves showed no evidence of tuberculosis. The trachea, larynx and bronchi, pharynx, and mouth were normal. The heart was healthy, the valves held to the water test, and the muscular tissue was of good colour. There was diffuse staining of the endocardium, but no subendocardial or subpericardial hæmorrhages. The stomach and the intestinal tract were normal; there was no swelling of Peyer's patches or ulceration. The mesenteric glands were slightly swollen,

but there was no intestinal or peritoneal or mesenteric tuberculosis.

Both supra-renal bodies had become converted into a soft, breaking-down, caseous material, no trace of gland tissue being left.

The liver, spleen, and kidneys showed no evidence of disease. The pelvic viscera were normal. The brain and its membranes were healthy.

CASE 8. Addison's disease; slight pigmentation of abdomen only; delusions; caseous supra-renal bodies; supra-renal feeding.—T. W—, æt. 34, school inspector. Admitted February 19th, 1897, died March 11th, 1897.

The patient's family history was good. His father and mother were living and healthy, also his three brothers and a sister. There was no history of phthisis to be obtained. When quite young the patient had suffered from measles and scarlet fever; also he was said to have had two slight attacks of influenza.

Two years before admission to hospital his friends noticed that he was becoming thin, and since then his emaciation had become a subject of frequent remark. For five months he had suffered from nausea and vomiting, at first at rare intervals, but lately more constantly; at the same time he had lost strength to such an extent that when admitted he was incapable of standing erect. He stated, too, that after a few hours' sleep at night he would generally awake with his brain in such an active and excited condition that he could obtain no more rest.

When admitted he was found to be somewhat emaciated, and suffering from the most extreme languor. His mind was perfectly clear. The chest was well formed and its movements were free. The percussion note over the lungs was not thought to be impaired; no adventitious sounds were audible. The area of cardiac dulness was normal, but the heart-sounds were so feeble as to be almost inaudible. The pulse was small and weak. The abdomen was flaccid. The edge of the liver could just be felt below the costal margin, and appeared to be of normal consistence. The spleen could not be felt. There was no glandular enlarge-

ment. The nervous system showed no signs of disease. The fauces were congested and clogged with sticky mucus. The only pigmentation noticed consisted of some small brownish patches around the umbilicus. The temperature was $100\cdot2^{\circ}$ F.; the weight 9 st. 5 lbs. The urine was normal.

The patient vomited several times soon after admission, bringing up curdled milk. As the vomiting continued and the nature of the case was obscure, the stomach was washed out; but neither this nor the use of bismuth, hydrocyanic acid, and nux vomica had very much influence in checking the troublesome vomiting. The temperature after the first four or five days fell almost to normal, and there was considerable difficulty in producing a proper evacuation of the bowels.

On March 5th supra-renal treatment was commenced, a quarter of a gland being administered twice daily. The patient at this time was wandering in his mind and suffering from harmless delusions. The feebleness of the pulse had increased, although its rate was not very fast. Strychnine injections were adopted in addition to the supra-renal feeding, but with no appreciable influence. The patient continued to wander in his mind and occasionally to vomit; his sleep was very much broken. Death occurred on March 11th. The temperature for a few days before death rose in the evening, on one occasion reaching $100\cdot2^{\circ}$ F. It usually fell to 97° F. in the mornings. For the last two days the patient was unable to retain the supra-renal capsules.

Post-mortem examination.—Although the cheeks were hollow and the eyes sunken, yet there was a very considerable deposit—at least half an inch—of fat in the abdominal wall. The only pigmentations discovered in the body were several small brownish patches, each about as large as a sixpence, around the umbilicus. The heart was flabby and the myocardium very pale, but there were no valve lesions. The apex of each lung was scarred, and embedded in much fibrous tissue were found some small caseating nodules. With this exception the lungs were crepitant and normal. The air passages were healthy. A number of minute sub-pleural hæmorrhages were present. The kidneys were

normal in appearance. The right supra-renal body was enlarged and adherent to the under surface of the liver. The distinction between cortex and medulla was quite lost, the whole being converted into a caseous mass. The left supra-renal was smaller than the right, and was entirely disintegrated, the caseous material being converted into thick yellow pus.

At the point where the right supra-renal body was adherent to the liver the latter viscus had been invaded by tuberculosis, and contained several small caseous nodules. The rest of the liver on section appeared fatty. The gall-bladder contained four cholesterin gall-stones with brownish nuclei. There were two or three caseating glands in the portal fissure.

The spleen appeared normal, and there was no lesion of the stomach or intestines visible to the naked eye.

(I wish to express my indebtedness to the members of the staff for their kindness in placing the notes of the above cases at my disposal.)

ON SOME PULMONARY COMPLICATIONS OF NEW GROWTHS OF THE ŒSOPHAGUS.

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THE frequency with which new growths of the œsophagus involve some portion of the respiratory tract is the cause of some of the most striking features in the course of such cases. Additional importance is lent to these complications by the late appearance or even absence of dysphagia in some instances, so that for some time they may form the only evidence of disease. For instance, M. M—, male æt. 51 (under the care of Dr. Beale, City of London Hospital for Diseases of the Chest), who was found to have double abductor paralysis of the larynx, had suffered from cough with profuse blood-stained expectoration for four months, but from dysphagia for only three weeks before admission. Post mortem, malignant ulceration of the œsophagus with stenosis and perforation of the trachea was found.

Leaving untouched, however, the results of direct pressure, such as nervous paralysis, hæmoptysis, etc., I shall confine myself to purely pulmonary complications, calling especial attention to the liability of these growths to ulceration, and the effects thus produced on the lungs. The

following case, however, is so interesting, though the conditions were due to pressure, that I cannot omit it.

CASE 1. *Malignant growth of the œsophagus ; pressure on left bronchus ; dysphagia slight.*—R. R—, æt. 35, single, labourer, under the care of Dr. Green, Brompton Hospital, admitted October 2nd, died November 3rd, 1895.

Previous history.—Health good till December, 1894, when left pleurisy and effusion, for which he was aspirated in February, 1895, half a pint of sero-purulent fluid being drawn off. At this time he began to find it difficult to swallow solids ; several times during the last few months has left off eating solids on account of dysphagia. At present time can swallow solids if well chewed. For three months has had a swelling in the right groin (found to be a small packet of hard and tender glands below Poupart's ligament). Cough ten months. Expectoration frothy.

Present condition.—Left chest retracted ; movement poor. Measurement : right, $17\frac{1}{4}$ inches ; left, $15\frac{1}{2}$ inches.

Cardiac impulse in fifth interspace one inch outside the nipple line. Stomach note at sixth rib. Pulsation visible in second left interspace over $2\frac{1}{4}$ inches, starting 1 inch from the sternum ; in the third space for 5 inches from the left edge of the sternum ; in the fourth space for $3\frac{1}{2}$ inches, starting 1 inch from the sternum. Whole front dull. Breath-sounds cavernous at the apex ; weak or absent over the rest of the front. Posteriorly : dulness from the apex downwards, except for last two inches at the base, where note is tympanitic. Breath-sounds cavernous at the apex, diminishing in intensity between the spine and angle of the scapula, and from the angle downwards very weak.

Right lung healthy, distended, extending beyond the left edge of the sternum.

Pupils : on admission the left was noted as twice the size of the right, both reacting to light and on accommodation. On October 6th they were noted as equal.

October 8th.—Hæmoptysis four ounces.

21st.—No. 13 bougie passed, but No. 17 was stopped seven inches from the teeth, causing much cough.

22nd.—No. 21 bougie passed without difficulty.

Temperature: from October 18th pyrexia rising to 101° — 102° at night.

Autopsy.—General firm adhesion of the left pleura, except along the anterior margin, where adhesion was recent; right, free and healthy. Pericardium: general adhesion. Œsophagus, etc.: wall thickened by growth from the level of the bifurcation of the trachea to 1 to $1\frac{1}{2}$ inches above the cardiac orifice of the stomach; the whole anterior wall has sloughed, and is replaced by a large cavity filled with necrotic growth and blood-clot. Perforation of aorta about $1\frac{1}{2}$ inches below the level of the left bronchus.

The growth has extended along the left bronchus, which is embedded in it, occupying the whole root of the left lung and invading its central portion to a depth of 3 inches. Superficial patch of gangrene some 5 inches in extent in left upper lobe. Anteriorly it has invaded the pericardium on its posterior wall and has grown into the left auricle, blocking one left pulmonary vein completely, and the second almost completely.

Secondary nodules in supra-renals and kidneys; two large infiltrated glands below Poupart's ligament.

The resemblance of this case to one of chronic tuberculosis—retraction of one lung, expansion of the opposite lung, uncovering of the heart—was most striking, and for a growth, whether mediastinal or œsophageal, quite unusual.

It is uncommon, however, for œsophageal malignant disease to produce large masses of growth and give the signs of bronchial pressure. The case just quoted is the only one I could find of such pressure, though pressure effects on smaller structures, such as nerves, are not uncommon. Gangrene of lung from ulceration of the growth is rather its characteristic.

This liability to ulceration arises from the situation of these growths. Their surface being easily abraded and torn in the act of swallowing, with micro-organisms from the mouth constantly implanted in them, necrosis advances almost as fast as growth, and the common post-mortem appearance in these cases of a large foul ulcer with shreddy base coated with decaying particles of food is reached, the chief or only evidence of malignancy being

found at the spreading edge and in one or two islets of growth which have been spared.

Perforation of the trachea with inhalation broncho-pneumonia may occur, but where the growth affects the posterior or lateral aspects of the œsophagus, adhesion of the lung and direct extension of ulceration into it follow. In either case gangrene of the lung, from the septic nature of the material introduced, is the invariable result. A good instance of this tendency to ulceration is to be found in a case which occurred at Brompton, where a new growth of the pharynx opened into a fistulous track which, in its turn, broke into the upper lobe of the right lung, causing necrosis and excavation. Septic pleurisy and empyema, or even pneumothorax, may be superadded.

The following case is an example of this direct extension of ulceration into the lung.

CASE 2. Malignant ulceration of œsophagus; perforation of right lung; gangrene, pneumothorax; dysphagia well marked.—W. F—, æt. 51, bricklayer, admitted to the City of London Hospital for Diseases of the Chest January 18th, 1897, under Dr. Eustace Smith.

Previous health good.

Present illness.—Vomiting after all food since Christmas, and consequent emaciation. Some difficulty in swallowing also has been experienced. According to the patient, the difficulty occurs with the first mouthful of a meal; if this is overcome, no further difficulty is felt.

During his stay in hospital, pain, difficulty of swallowing and vomiting occurred after solid—even soft solid food. Liquids were well taken.

The *physical signs* on admission were only those of emphysema with scattered bronchitis, without pressure signs. Later the signs of pneumothorax developed on the right. The right pupil from the first was smaller than the left, and towards the last became much contracted, while the right side of the face was pale and dry when the left was flushed and sweating freely. Pulses equal; no enlarged glands.

Temperature always raised at night, usually to about 100°, but much higher during last few days of life.

Death March 6th, 1897.

Autopsy (March 7th, 1897).—Pleuræ: right, pyopneumothorax; left, healthy. Œsophagus, etc.: irregular ulceration of the lower half, with scattered nodules of growth, the whole reaching from the level of the bifurcation of the trachea to the cardiac orifice of the stomach. On the right side of the Œsophagus, about two inches below the highest point of the growth, perforation of the wall by ulceration had occurred; the opening led into the lung, which was adherent to the Œsophagus, and opened into a large superficial gangrenous cavity. This area of gangrene involved about half the posterior surface of the lower lobe, and reached from just below the level of the interlobar septum to about two inches from the base. The lateral width was about five inches. The gangrene was quite superficial, and stripped up the pleura; two large openings in the pleura led into the pleural cavity.

Rest of right lung healthy; left lung healthy.

Right recurrent laryngeal compressed by an outlying nodule of growth.

The pulmonary symptoms thus induced are so severe that the original cause is quite overshadowed. Moreover the ulceration of the growth, at the same time that it gives rise to these lung complications, lessens the obstruction, thus bringing the pulmonary symptoms still more into prominence.

Latency.—Lastly, ulceration may start early, even before the growth attains sufficient size to cause any obstruction. In these cases dysphagia never occurs, and the resemblance of the clinical picture to a primary lesion of the lung may be complete, the case appearing as one of gangrene without obvious cause, signs of pressure on a bronchus being absent, and the history of the illness starting with a pleurisy. This latency is most likely to occur where the direct extension into the lung spoken of above has taken place.

The following cases are examples of this condition.

CASE 3. *Malignant ulceration of œsophagus; adhesion of lung, perforation, and gangrene; death by hæmoptysis; entire absence of dysphagia*.—C. S—, married, æt. 49.

Admitted to the Brompton Hospital June 7th, 1893, died June 9th, 1893.

History.—Quite well till Easter, 1893—*i. e.* two and a half to three months before admission. Then a chill, followed by pain in the back and right side; a day or two later hæmoptysis. Since then cough, with profuse, very offensive sputa. No further hæmoptysis. No complaint of dysphagia.

Examination of the chest showed that on the right side posteriorly there was dulness from the angle of the scapula downwards, with bronchial breathing, increased vocal fremitus, and a few râles. Râles heard also in the right axilla.

Left lung healthy. Breath very offensive.

Temperature: Morning range, 100° ; evening, 100.4° to 102° .

Death from hæmoptysis two days after admission. No mention in notes of any dysphagia.

Autopsy.—Pleuræ: left, general adhesion; right, scattered adhesion; larynx, pharynx, and trachea healthy. Œsophagus the seat of an ulcerating growth two inches long, completely encircling the wall opposite the level of the lower end of the right main bronchus. Very slight narrowing, if any, produced by the growth. Posteriorly and laterally on the right side the wall of the œsophagus was quite destroyed and the lung adherent.

Right bronchus: free.

Right lung: an opening from the œsophagus led into a gangrenous cavity occupying adjoining portions of the upper and lower lobes. The cavity was about the size of a billiard ball, and contained clotted blood. The surrounding lung was in a state of grey pneumonia for a depth of one to two inches, reaching upward to $1\frac{1}{2}$ inches below the apex, and the same distance from the base.

No other disease present in any organ, except that some of the bronchial glands were infiltrated.

CASE 4. *Malignant ulceration of œsophagus; adhesion of lung, perforation of left bronchus; gangrene; pyopneumothorax; pain and vomiting after food at the onset, afterwards subsiding completely.*—W. D—, æt. 53, admitted to

the City of London Hospital for Diseases of the Chest, March 3rd, 1897, under Dr. Eustace Smith.

Complaint of pain in left side with weakness, dyspnœa, and cough of nine weeks' duration.

Health good till six months ago, when pain, felt shortly after food, started with vomiting (easing the pain); this continued for three months, subsiding under treatment. For the last two months neither pain nor vomiting. Has continued, however, to get weaker and shorter of breath. Pain in the left side (of insidious onset) came on nine weeks ago. Was tapped three weeks ago, two pints of clear fluid being withdrawn. Sputa abundant, muco-purulent, not offensive.

Lungs: physical signs of fluid in the left pleura; friction heard in the anterior axillary line. Right lung emphysematous.

Pulses and pupils equal; larynx healthy.

March 16th.—Aspirated; forty ounces of clear fluid removed.

20th.—Breath noted as very offensive after cough. Explored: blood-stained fluid found, not noted as offensive.

22nd.—Signs of pneumothorax, replaced by those of fluid on March 25th. Sputa noticed to be very offensive for the first time, March 22nd.

27th.—Rigor.

28th.—Explored: very offensive sero-purulent fluid withdrawn.

30th.—Death.

Temperature: morning range 99.5° to 100° ; evening 101° to 102° .

Autopsy.—Pleuræ: right healthy; left, pyopneumothorax (pus fœtid). Left lung adherent and solid from the apex to the level of the second rib. Perforation seen on anterior aspect of the upper lobe. Œsophagus: on the anterior wall, starting a little above the level of the bifurcation of the trachea, and extending downwards for three inches, a large fungating growth. The left lung was adherent to the outer surface of the growth, and a probe could be passed from the œsophagus into the left bronchus. The bronchus was invaded immediately below its origin over an area one inch long and half an inch wide, in which were several ulcerated openings.

Lungs : the apex of the left upper lobe for about two inches was quite solid, with greyish-white firm pneumonia, in places beginning to soften. The rest of the lobe was breaking down freely into fœtid cavities, one of which communicated with the pleural cavity. Rest of lung collapsed. Right lung ; scattered broncho-pneumonic areas near the base.

CASE 5. *Malignant ulceration of œsophagus and stomach ; gangrene of lung ; no dysphagia.*—E. R—, æt. 40, single, admitted to the City of London Hospital for Diseases of the Chest, October 4th, 1898, under Dr. Clifford Beale.

History.—Has suffered from attacks of indigestion. In January, 1898, hæmatemesis. Since January but little pain except on pressure in the epigastrium. In March, 1898, "congestion" of the left lung. In May, 1898, left pleurisy tapped ; two ounces only of clear fluid withdrawn. Since this illness in May has suffered much from cough, with profuse, frothy, blood-stained expectoration ; night sweats and increasing dyspnœa.

On examination, right lung healthy. Left lung : dulness from the angle of the scapula downwards, and over the lower half of the axilla, with tubular breathing becoming weaker as the base is approached and a few râles audible midway between the angle and the base. Vocal resonance increased. Vocal fremitus not increased. Cardiac impulse in normal position. Abdomen : nothing abnormal to be detected.

October 10th.—Noted as taking food well, without pain or sickness. Similar note on October 15th and October 20th.

13th.—Explored, the tubular breathing having disappeared, the other signs persisting ; four ounces of very offensive serous fluid withdrawn.

14th.—Resection of rib ; five ounces of serous fluid (blood-stained) evacuated.

20th.—Discharge from wound purulent ; October 29th discharge abundant and offensive.

The expectoration noted on October 13th as profuse, blood-stained, but not offensive, became very offensive October 20th ; gangrenous October 29th, and so continued.

Temperature : pyrexia was always present, with rigors on October 4th, 6th, 8th, 11th, 12th, and 26th.

The consolidation of the left lung continued and spread upward; mental symptoms ensued, and death occurred November 27th, without any dysphagia at any time.

Autopsy.—Left pleura firmly adherent in its lower half and on the basal aspect to the diaphragm; upper half healthy. Adhesions between left lobe of the liver and diaphragm; peritoneum otherwise healthy. Lungs: right, healthy; left, upper lobe, scattered consolidation; lower lobe gangrenous, containing a large foul cavity, communicating through the diaphragm with the stomach, shut off from the general peritoneal cavity by adhesions, and bounded externally by the spleen and upper end of the left kidney. At the junction of the Œsophagus and stomach, involving both, was a large fungating growth, which had broken down the diaphragm, communicated with the lung, and caused gangrene.

The following contentions are, I think, fairly borne out by the cases quoted:

1. That malignant growths of the Œsophagus are very apt to cause gangrene of the lung with resulting pleurisy or pneumothorax.

2. That gangrene dependent on ulceration of the original growth, and not simple pressure on a bronchus, is the characteristic type of the pulmonary complications of these growths. In this they differ from the mediastinal sarcomata. Case 1 was the only instance I could find, after careful search, of such pressure.

3. That dysphagia may be slight or absent, and hence it is necessary in obscure cases of gangrene of the lung or pneumothorax to consider carcinoma of the Œsophagus.

Intermission of dysphagia, such as we would rather attribute to the pressure of an aneurysm, is an interesting feature in connection with malignant disease of the Œsophagus, showing that the dysphagia is largely dependent on spasm, produced probably by local irritation. The following case is almost certainly an instance.

E. S. H—, æt. 51, watchmaker, admitted City of London Hospital for Diseases of the Chest, May 27th, 1897, under the care of Dr. Eustace Smith; left hospital August 11th, 1897.

Complaint of dysphagia since October, 1896, first of solids; later, fluids were only swallowed with great difficulty. Now can swallow soft solids and liquids, but only with much pain. At times his throat "feels closed" for two or three days; then something seems to move and lets food pass. Lost 3 st. 8 lbs. in last three months.

The only signs on examination of the chest were those of emphysema. The heart was not displaced; pulses and pupils were equal, the latter acting well. No enlarged glands present. No paralysis of larynx.

During his long stay in the hospital no alteration in these physical signs took place, but he lost much weight towards the end of his stay.

Food caused fearful pain, and vomiting followed immediately on swallowing. His condition in the latter respect varied greatly; at times he was quite unable to swallow for hours or even a whole day; then sudden relief to the obstruction would occur. On other days he could swallow much better.

He died shortly after in the German Hospital, and his case was registered there as one of œsophageal growth, but unfortunately it is not stated whether this was based on an autopsy or not.

Quite recently, however, a man was admitted to the City of London Chest Hospital for hæmoptysis, with a similar history of dysphagia for one year in periodic attacks, at first infrequent, but latterly becoming much more frequent. These attacks lasted two or three days, and during them he would vomit all food, solids and liquids alike, immediately they were taken. An increasing permanent dysphagia gradually developed between the attacks. He died of hæmoptysis five days after admission, and was found on post-mortem examination to have malignant disease of the œsophagus, which had perforated the left bronchus, so causing the hæmoptysis.

In conclusion I have to thank the various physicians whose names are given for permission to make use of their cases, and Dr. Habershon for kindly placing his post-mortem notes at Brompton at my disposal.

ÆSCULAPIUS AND HIS SANCTUARY.¹

By W. S. COLMAN, M.D., F.R.C.P.,
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As Dr. Payne has pointed out in his article on the "History of Medicine" in the 'Encyclopædia Britannica,' the arts of medicine and surgery cannot be said to have had any definite beginning. The earliest man must have rendered himself some "first aid," and experience gradually taught him fresh methods of treating injuries and internal diseases. But supernatural agencies were supposed to play so great a part in the latter that we find charms, enchantments, and other superstitious therapeutical measures almost the only ones resorted to. The advertisements of clairvoyants and other charlatans in the 'Morning Post' of to-day, show that we cannot afford to be over-contemptuous of our remote ancestors.

¹ A paper read before the Medical and Physical Society, November 9th, 1899.

I am indebted to Dr. Payne for valuable references, to Dr. Caton of Liverpool, who kindly lent lantern slides to illustrate the lecture, and to Mr. Frazer of Cambridge, who allowed me to copy the plan of the sanctuary from the instructive notes in his translation of 'Pausanias,' from which I have also borrowed translations of many of the votive inscriptions.

We have evidence that among the early Egyptians, both medicine and surgery were practised with some degree of enlightenment. This is clear from contemporary inscriptions and papyri, as well as from the statements of Herodotus. Medicine and pharmacy were in the hands of the priests, who were the educated class of the time. At the present time a number of pharmaceutical recipes may be seen inscribed on the walls of the temple of Philæ, one of which gives directions for the preparation of some cosmetic, presumably sold to enrich the funds of the temple, much as the monks of La Grande Chartreuse Monastery have for centuries compounded and sold the well-known green and yellow liqueurs. But the burning of the library of Alexandria has robbed us of works which would have given priceless information on this subject.

In later times, when there was free communication between Egypt and Greece, medical views were influenced by Egyptian teaching. But Æsculapius belonged to a period long before the Christian Era (1200 B.C.), at a time when Egyptian influence can have been very slight. There is a general belief that Æsculapius was a real person, a genius who was not content to go on the lines of his predecessors. His practice seems to have had the merit of investigating each particular case, and adjusting the treatment to the individual; or, as clinical teachers would say now, he endeavoured to treat the patient rather than the disease.

BIOGRAPHY OF ÆSCULAPIUS.

In the time of our hero all knowledge was handed down in Greece by word of mouth, and the accounts we have of him show that oral testimony even then grew by repetition. Accordingly, as with other Greek heroes, we find a divine origin assigned to him, portents connected with his birth and early life, and finally his deification. Our knowledge of his biography is almost entirely collected from chance allusions in poems and other inexact works, and from traditions current a thousand years after his death. There is not complete agreement between these stories, but the following seems to have been the generally received tradition.

Æsculapius was the son of a mortal, Coronis, and of the god Apollo (generally regarded as the deification of the sun), who was credited with healing powers. While Coronis was pregnant she had a *liaison* with a local shepherd. Her infidelity was observed by a crow, which at that time had snowy plumage. The bird officiously rushed off and told Apollo, who cursed it with such vigour that its feathers turned black, and have remained so to this day. Apollo then killed Coronis, and when she was on the funeral pyre, Mercury extracted by Cæsarean, or Æsculapian, section the living Æsculapius. Some little time later a herdsman missed one of his goats, and going to look for it on the hillside found Æsculapius sucking peacefully at its teats, while a dog stood by and guarded the child. Neither a dog nor a she goat might afterwards be used as offerings for the god, and the hill named Kynortion preserves the fame of the dog to this day (Caton). It is also said that the Centaur Chiron undertook his education, and taught him medicine and surgery. The oracle of Delphi spoke of him as "born to become a great joy in the world." Of his acts during life we know little or nothing, but we may perhaps assume that the methods of treatment carried out in the temples dedicated to him in historical times were actually devised by him.

The serpent was sacred to Æsculapius, and in later ages people were even made to believe that he assumed this form and visited them in the temple (see later). The special snake was a large yellow harmless variety which was abundant in the district of Epidaurus, his reputed birthplace. In our own day the symbol of Æsculapius, a knotty staff with a serpent twining round it, is often employed as the symbol of the medical profession. Such a staff forms the mace which is placed before the President at all meetings of the Medical Society of London.

The mythical account of the association of the serpent with his worship, is that Æsculapius was on one occasion shut up in the house of Glaucus, whom he was to cure. While he was standing absorbed in thought, a serpent came and twined round his staff, which he killed. Another serpent glided into the room bearing an herb with which it

revived the other snake. Æsculapius took the hint and succeeded in restoring the dead with the same herb. Unfortunately this discovery was his undoing. He was struck by Jove with a thunderbolt, some say because he restored to life an innocent man whom the god had killed in a temper ; others, because Pluto had represented that Æsculapius was seriously diminishing the population of the infernal regions.

It would take us too far from our present subject to discuss at any length the significance of the serpent as a symbol. The serpent constantly appears along with other representations of the deity in all countries where the sun is the object of adoration. The sun is regarded as the source of life and health, and in both Chinese, Persian, and Egyptian sculptures the sun's disc is frequently accompanied by serpents. Why, it is difficult to say ; possibly because of their power of bending themselves into a ring, and so enclosing a disc.

In Greek mythology serpents were associated with Apollo, the sun. To Mercury, his half brother, he gave as his sign the Caduceus, and probably it was owing to his being the son of Apollo that in Greek mythology the serpent was taken as the symbol of Æsculapius.

The common belief that Æsculapius assumed the form of the serpent was in later times the foundation of a most successful imposture. Two rascals sent word to a credulous country district that Apollo and Æsculapius were about to visit it, and that the temple was to be got ready. They started, taking with them one of the large yellow snakes. On the way the false Æsculapius died ; "Apollo," however, was not daunted. He arrived at the temple all alone, but announced that he would present Æsculapius to them in a few days. He procured a small snake and introduced it into an eggshell. During the performance of some ceremonies he exclaimed that he felt the god's presence. Putting his hand into a crevice he drew out the egg, and breaking it, showed the little snake to the people, who acclaimed it as the god. A few days later he showed them the large yellow one, explaining that the small one was the god in his first stage. They paid divine honours to this

tame snake. The impostor fitted a white mask like a face on its head, and with the aid of a little ventriloquism gave oracular responses to questions, chiefly about diseases. The fame of the oracle soon spread, and for a time the quack made large sums.

THE SUCCESSORS OF ÆSCULAPIUS.

The wife of Æsculapius was Epion. He had two sons, Machaon and Podalirius, who are credited with specialising in medicine and surgery respectively. Of his four daughters, Hygeia and Panacea have handed down names of medical significance to our own time. His daughters are said to have taken an active part in the treatment of the sick, and some have seen in them the representatives of modern nurses. The practice of Æsculapian methods was continued by his family, there being some ceremony of initiation; but we have no evidence that they were the only practitioners in those days. Homer frequently refers to physicians, but never to the Æsculapians. Hippocrates is said to have been one of the descendants of the seventeenth generation from Æsculapius.

In what is known as the "Oath of Hippocrates," which was formally subscribed by all who aspired to practise medicine, the oath was taken in the name of Æsculapius and his family as follows :

The Oath of Hippocrates.

I swear by Apollo the healer, by Æsculapius, Hygeia, and Panacea, and all gods and goddesses, calling them all to witness, that I will fulfil according to my power and judgment this oath and promise. I will reverence my teacher in this art as my own parents, give him of my living and fulfil his necessities: I will regard his issue as my own brothers, and will teach them this art if they wish to learn it without pay or obligation: I will admit to teaching, to lecture, and all other instruction, my own sons and those of my teacher and pupils who are articulated and have taken the oath pertaining to physicians and none beside. I will use a regimen suited to the good of the sick according to my power and judgment, and preserve them from any injury: I will give no man poison at his request, nor will give such advice: likewise will I administer no harmful drug to women. I will preserve my life and practice pure and sound. I will not cut for stone, but leave that to

those who practise that art. When I enter a house I will go for the good of the sick, keeping myself from all wilful harm and injury and all lust toward man and woman, free and slave. All that I hear and see in my practice or out of my practice in ordinary life, if it ought not to be told outside, I will keep in silence, regarding this experience as secret. If I keep this oath sacred may I be successful in life and practice and in repute with all men for all time: but if I violate it and commit perjury, may it be otherwise with me.

In later times, however, we meet with a lay association—the Asclepiads,—who may have been the result of a split in the camp, or the name may have been simply annexed by the new body, and have no more connection with Æsculapius than the Æsculapian Society of general practitioners in the north of London.

But for centuries, even as late as the fourth century after Christ, there was a cult in which medical treatment and the worship of Æsculapius were inseparably united. There was a large and powerful priesthood. All of the priests do not appear to have undertaken medical functions, but some of them had that office, and there is mention of priestesses, whose function is uncertain. The seats of the cult were scattered over Greece and Asia Minor, and there also was a celebrated one near Rome. The parent site was at Epidaurus, in the south-east of the Peloponnesus, and from that colonies were founded in various places, the most famous being at Athens, Pergamos, Cos, Mycenæ, and Cnidos. That at Cos was noted because the votive tablets there, which, unfortunately, have never been recovered, contained a more complete clinical history than the others; and some of them were often quoted by early writers as “The Prognoses of Cos.” Hippocrates, who belonged to the cult, is said to have been indebted to these tablets in writing his aphorisms.

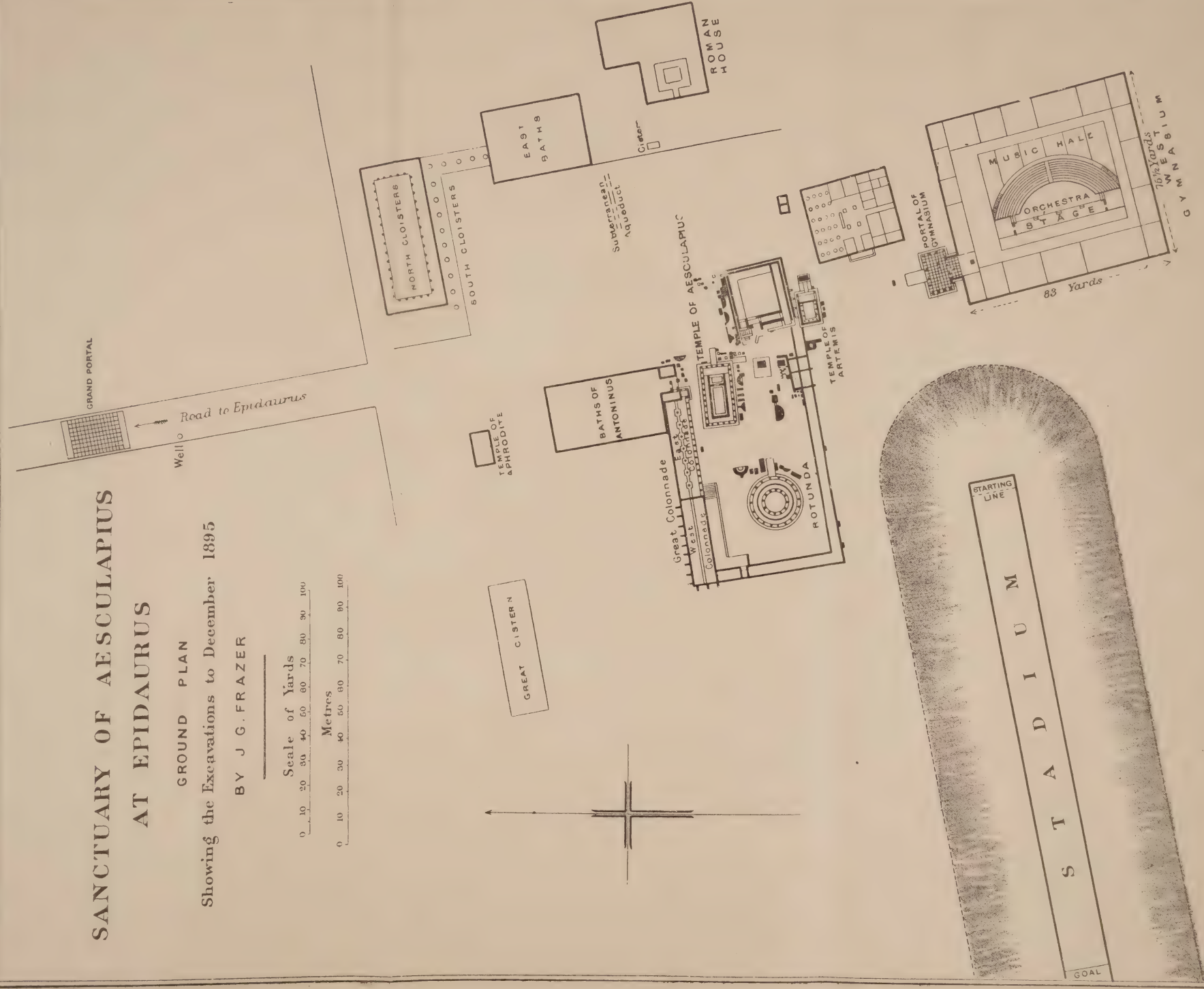
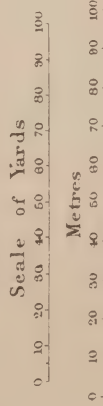
When Rome had been ravaged by pestilence, an oracle in B.C. 293 told the Romans to fetch Æsculapius from his great sanctuary at Epidaurus. A deputation was sent, and a serpent came out of the temple, glided down to the shore, and ensconced itself in the captain’s cabin. A few priests accompanied it. When the ship reached the mouth of the Tiber the snake slipped overboard, swam to an island, and curled up there. With this arrival the pestilence ceased. A temple was built, and the shrine of Æsculapius was for



SANCTUARY OF AESCULAPIUS AT EPIDAUROS

GROUND PLAN
Showing the Excavations to December 1895

BY J. G. FRAZER



Standard's Geographical Establishment, London.

Reproduced, by permission of the Author and Messrs. Macmillan, from Fraser's 'Pausanias.'

centuries credited with miraculous cures ; and even at the present time there is a popular belief in miraculous cures at the same place, although glory is given to mediæval saints, and not to the Greek god.

THE SANCTUARY OF ÆSCULAPIUS.

The largest and most famous of the sanctuaries was at Epidaurus ; and as recent excavations enable us to realise what the buildings and arrangements there were, a short account of it may be given before describing what is known of the methods of treatment.

The ruins are found in the centre of a fine open valley screened by picturesque hills 2000 feet high, and the site is still known as *To 'Ιερον* (The Sanctuary) by the peasants. It extended over a large area, and, besides temples to Æsculapius, Aphrodite, and Artemis, and large dormitories as wards where the cures were effected, contained a race-course, an immense theatre—one of the most perfect yet excavated,—a music-hall, and hostels for patients to lodge in, and luxurious baths. (Most of these buildings are shown in Mr. Frazer's plan, with the exception of the theatre.) It corresponded, therefore, more with a fashionable "spa" than with a modern hospital. The building which most interests us is the dormitory or abaton in which the cures took place. It was a great Ionic colonnade, 250 feet long and 32 feet wide, divided into an eastern and a western section ; in the western there were two stories. Benches of limestone extended along the side walls like a divan, and there were similar slabs, to serve as couches, placed transversely in the intervals between the pillars. In these wards and in the temple inscriptions were placed recording the ailments of some of the patients and the means by which they were relieved. Two large tables of inscriptions have recently been found, and others are quoted by Pausanias and other travellers who visited the Sanctuary when it was flourishing. At the end of the dormitory is a deep well, which was probably a sacred one, and furnished water for the ceremonial ablutions, which were an important part of the treatment. There was an altar in the dormi-

tory, on which offerings were laid before the patient underwent treatment, and after cure he was expected to leave other and more valuable offerings in the temple ; and there are several inscriptions which give warning of the awful fate which overtook those who cheated the god of his fees.

Pandarus, a Thessalian, had letters branded on his forehead. Sleeping in the Sanctuary, he dreamed that the god bound a fillet over the brand and bade him, so soon as he should leave the dormitory, take off the fillet and dedicate it in the temple. When morning came he arose and took off the fillet, and lo ! the marks had disappeared from his face, but the letters which had been branded on his brow were now stamped on the fillet, which he dedicated in the temple as the god had commanded him. Now it happened that Echidaurus, whose face was also branded, came to the Sanctuary with money which he had received from Pandarus to make a dedicatory offering to Æsculapius, but he did not make the offering ; and as he slept in the Sanctuary, the god asked him in a dream whether he had not received money from Pandarus for the purpose of making a dedicatory offering in the temple. The man denied having received the money, but offered, if the god would heal the marks from his face, to have a picture of the god painted and hung in the temple. Then the god bound the fillet of Pandarus about the brands of Echidaurus, and bade him, on leaving the dormitory, take off the fillet, wash his face in the cistern, and look at himself in the water. Morning being come, he went forth from the dormitory and took off the fillet, from which the letters had now vanished ; but, on looking at his own reflection in the water, he saw that his face was now branded with the marks of Pandarus in addition to his own.

Case of Ambrosia, from Athens, who had but one eye. She came to seek aid of the god, and, walking round the precincts, began to ridicule some of their cures, saying it was absurd and impossible that the lame and the blind should become whole merely through seeing a vision. And sleeping, she saw a vision, and thought that the god stood by her and said that he would make her whole, but she must for payment dedicate in the precincts a silver pig as a memorial of her folly ; and with these words the god cut open her diseased eye and poured a drug in. And when day broke she went away healed.

Hermon of Thasos, a blind man, was cured by the god ; but, as he would not pay the fee, he was deprived of sight again. Appeased, however, by his prayers and penitence, the god once more restored him to sight.

The precincts of the sanctuary were sacred, and no one was allowed to die there, nor was any woman allowed to be given birth to a child. One can imagine the excitement when some patient who had come for "dropsy" began to exhibit signs of labour, and the poor thing was bundled unceremoniously out. In this connection it is interesting to

remember that there is an objection to a child being born in St. Bartholomew's Hospital for a very different reason, viz. that the hospital constitutes an entire parish—that of St. Bartholomew the Less—and that any child born there might be chargeable to the hospital as its parish.

Crutches, etc., were left as votive offerings in the temple, and models in gold, silver, or baser material, of the parts which had been diseased. As a sign of gratitude many patients were enjoined to cover with gold coins that part of the statue of the god which corresponded with their own complaint. Similar placing of votive models in churches is customary to-day in Southern Europe.

There must have been a constant stream of sufferers coming to Epidaurus, and, in addition, there were special festivals when enormous crowds came. The chief feast took place in February, every fifth year after the Isthmian games. The statue was carried round in procession, accompanied by a crowd bearing torches. Then followed several days devoted partly to sacrifices and partly to wrestling, races, and theatrical performances. The whole festival corresponds remarkably with the "pardons" in Brittany, when thousands of people make pilgrimages to some holy well or shrine, and in which faith-healing, religion, and rather riotous amusements are to be seen going on at one time.

From the accounts of travellers and references by Galen and other medical writers we can form some kind of idea of the methods of treatment at ordinary times.

The pilgrim who arrived for treatment was not at once admitted to sleep in the abaton or dormitory in order that the god might effect the miraculous cure. Elaborate preparatory ceremonies had to be observed according to the direction of the priest, and it is easy to see that it was these common-sense "preliminary" measures which were the real therapeutic agents; but the credulous patients were led to attribute everything to the final religious performance, much as over-fed gouty patients attribute their cure entirely to the waters of some spa rather than to the simple regimen and healthy surroundings. First of all, a more or less prolonged fast, especially from wine, was enjoined, and when the good effects of simple living had begun to show them-

selves the patient was conducted round the temple by a priest, who showed him the numerous votive offerings and inscriptions, particularly those bearing on his own complaint. He then offered a sacrifice, which was most frequently a ram or a cock, but it might be any animal except a goat or a dog, which were sacred, having nourished and guarded the infant Æsculapius. Prayers for the patient's recovery were sung by the priest. The patient's habits having been regulated, his imagination impressed by the wonderful accounts of cures, more active steps were taken. Baths followed by friction and manipulations, exercises in the stadium, and for those who were excitable courses of music hall and theatre were ordered. Victims of passion were advised to hear a poem read aloud, to hear a hymn sung, or to go to the play; others were advised horse exercise or hunting. And then, when the shrewd eye of the priest saw that the proper moment was come, the patient was told to take the skin of the animal he had sacrificed and sleep on it in the sacred dormitory, where the god would appear and tell him how his cure was to be effected. It is suspected that what the patients took for a visitation of the god during sleep was really a "visit" from the priest-physician, who performed small operations on them while they were half hypnotised with superstitious awe. The patients' own accounts, of course, tell of very marvellous things, just as now-a-days out-patients and even educated persons believe it is a common operation to remove a squinting eye and replace it in a correct position. We have in 'Plutus,' one of Aristophanes' skits, an account of a visit to the famous Sanctuary; which, although a burlesque, agrees fairly with what is gathered from more serious writers. A servant is giving an account of what happened to his master Plutus, who went to consult the god on account of blindness:

Servant.—My master, instead of being blind, has been restored to sight, having found Æsculapius a friendly physician. As soon as we came to the god we first conveyed the sufferer to the sea, and there washed him. Then we went to the temple of the god, and when our wafers and preparatory sacrifices were laid on the altar and our cake in the flame of Vulcan, we laid Plutus on a couch, as was proper, while each of us began putting his mattress in order. There was also Neoclides, who is nearly blind, but out.

does in stealing those who see, and many others having all sorts of diseases. But when the priest put out the lamps and ordered us to sleep, telling us if any one heard a noise he must be silent, we all lay down in an orderly manner; and I could not sleep, for there was a pot of porridge lying a little way off from the head of an old woman, towards which I desired to creep. Then, on looking up, I saw the priest snatching away the cakes and dried figs from the altar; and after this he went round to all the altars, in case a cake might be left, and then he consecrated these—into a sack! And I, supposing there was great piety in the thing, reached out towards the pot of porridge.

Wife.—O most daring of men! Were you not afraid of the god?

Servant.—Yes, by the gods! lest he might get to the pot before me, with his garlands on, for the priest taught me that beforehand. But the old woman, when she heard my noise, stretched forth her hand; and then I hissed and seized it with my teeth, as if I were an Æsculapian snake. But she immediately drew her hand back again and lay down, having wrapped herself up, trembling with fear, and then I greedily swallowed the greater part of the porridge; and when I was full I rested. After this I covered myself up, while the god went round in a circuit inspecting all the maladies very regularly. Then a servant set before him a mortar and pestle and a small chest. He sat down beside Plutus. Then the god whistled, and two snakes rushed forth from the temple, prodigious in size, and these two crept gently under the purple cloth and began to lick Plutus's eyes; and before you could have drunk up ten half-pints of wine Plutus was standing up, having the use of his eyes.

He goes on to describe how Æsculapius then put some irritant into the eyes of Neoclides the malingerer.

It will be noticed that the serpents played an important part in the cure of Plutus in fiction. Several votive inscriptions tell of the cure of ulcers and of blindness by the licking of sacred serpents and sacred dogs, who were trained for the purpose.

The "Incubation" or Ceremonial Sleep.—Although in our enlightened age we may attribute the cures to natural agencies, there is no question that of old it was the sleep in the temple and the dreams which were credited with the cure. In eastern countries dreams have always been looked on as messages from the gods. The difficulty has always lain in the interpretation. This the priests undertook. In later times there were in the temple precincts orators, sophists, and philosophers, who helped the priests to interpret the dreams. And if the patient was

not a good hand at dreaming, there were professional mediums, who would dream to order for a small fee; or a relation might come as a deputy, and dream as in the following inscription:

Arata, a Lacædemonian woman, came to Epidaurus on behalf of her daughter, who was afflicted with dropsy, and had been left behind in Lacædemonia. She slept in the Sanctuary, and dreamed a dream. She thought that the god cut off her daughter's head and hung up the headless trunk neck down. When all the moisture had run out, he took down the body and put on the head again. After she had dreamed this dream the mother returned to Lacædemonia, where she found that her daughter was cured, and had seen the very same dream.

Aristocrites, the child of Halike, went down to the sea to bathe, and found himself at last in a narrow place surrounded by rocks, with no way out. Then his father, who had searched vainly for him, went to sleep in the dormitory of Æsculapius, in order to learn tidings of his son. The god in his dream led him to the place where his child was. The father left the dormitory, cleft the rock, and recovered his son, who had been imprisoned there for a week.

"In Greece still (A.D. 1871) 'incubation' at the feet of saints takes place, and mothers sleep and dream on behalf of their children. And still, as in the days of Lucian, they cover with gold coins the affected part in the statue of the saint" (Schmidt, 'Das Volksleben der Neugriechen,' Leipzig, 1871).

The following votive inscriptions tell their own tale. We may put our own construction on them, and regard some as pure fable, some as cures by the *vis medicatrix naturæ*, and others as cures of functional disease by faith-healing.

First of all, a few that we may call fabulous:

Aristagora had a worm in her stomach. She slept in the Sanctuary at Troezen, and dreamed a dream. She thought that, Æsculapius being away at Epidaurus, his sons cut off her head, but that, being unable to put it on again, they sent for Æsculapius to come and help them. Meanwhile the day dawned, and the priest saw that the woman's head was of a truth severed from her body. The following night Aristagora had another dream. She thought that the god came from Epidaurus and put her head on her neck. Then he slit open her stomach, took out the worm, and sewed up the wound. After that she went away cured.

A man with an ulcer in his stomach went to sleep and dreamed that the god commanded his servants to seize him and hold him fast, so that his belly might be opened. The man took to flight, but he was caught by the servants and fastened down. Then Æsculapius opened his stomach, excised the ulcer, stitched him up again, and released him from his bonds. He immediately went away cured, and the pavement of the dormitory ran with blood.

Sostrata of Pheres had believed herself to be pregnant for a year, and was carried to the Sanctuary on a stretcher. She had no definite vision, and went away in despair. On the way she met a handsome young man, who asked what ailed her. He told the bearers to set the litter down, then opened her abdomen, and withdrew enough intestinal worms to fill a couple of basins. When he had sewn up the incision he revealed his identity as Æsculapius, and ordered her to send the usual fee to the temple.

A woman named Cleo had been with child for five years. She came and slept in the dormitory (Abaton) of the Sanctuary, and in the morning, as soon as she had quitted it, she was delivered of a son, who immediately washed in the cistern and walked about with his mother.

As examples of functional paralysis, the following may be given :

A dumb boy came to the precincts to ask for a cure for his dumbness. When he had made the preliminary sacrifice and performed the rites, a slave of the god, who carried the torch, turning to the father of the boy, said, "Do you promise that, if within a year he gains the end for which he came he will make the sacrifice of thanksgiving?" And the boy suddenly answered, "I promise." The father, in astonishment, made him say it again ; and he said it again, and thenceforward was cured.

A man whose fingers were all paralysed but one came as a suppliant to the god, but when he saw the tablets in the Sanctuary, with the miraculous cures recorded on them, he was incredulous, and scoffed at the cures. However, he fell asleep in the dormitory, and dreamed a dream. He thought that he was playing dice in the temple, and that, as he was about to make a throw, the god seized his hand and straightened out his fingers. In the morning he went forth whole.

In the next it is likely that some small operation was performed by a priest, the patient believing that it was the god in person :

Gorgias of Heraclæa had been wounded with an arrow in one of his lungs at a battle. Within eighteen months the wound generated so much matter that seventy-one cups were filled with it. He slept in the dormitory, and in a dream it seemed to him that the god removed the barb of the arrow from his lung. In the morning he went forth whole, with the barb of the arrow in his hands.

The next two will interest the dermatologists :

Kleinatas of Thebes was covered with lice. He slept in the dormitory, and dreamed that the god undressed him, and, making him stand before him, cleansed his body from vermin by means of a broom. At daybreak he went out cured.

Haraeus of Mitylene had no hair on his head, but a good crop on his chin. Being ashamed of being a laughingstock to his companions, he came to sleep in the hall. The god anointed his head with salve, and made the hair come.

The dreams, as before mentioned, were interpreted by the priest. In the tablets we have given there are accounts of curable cases only. But the priests knew how to escape discredit with incurable cases. They set them impossible tasks—"to jump into the middle of a river in the depth of winter," to obtain an impossible quantity of blood from a sacrificial victim,—and then threw the blame for the unfavourable result of the illness on the patient's failure to carry out the prescription.

After cure, payment was expected for the temple, and the following amusing inscription suggests that there was some bargaining beforehand :

Euphanes, a boy of Epidaurus, went to sleep in the temple suffering from stone, and it seemed to him that the god stood by him and asked, "What will you give me if I make you well?" He answered that he would give ten knuckle-bones, at which the god laughed and said that he would ease him. And when day broke he departed cured.

It may at first be thought that the practice of the Sanctuary of Æsculapius bore no resemblance to that at the Hospital of St. Thomas by the Thames. But although superstitions and customs may alter, human nature remains the same. The fine buildings on a commanding site, the uniformed officials, the air of mystery about things medical, the wonderful and exaggerated accounts of cures and of operations, have had the same effect in impressing the denizens of Lambeth that the surroundings of Epidaurus had on the superstitious Greek. The out-patient will come miles for a bottle containing Mist. Sennæ Co., and afterwards will tell with unnecessary detail of its marvellous efficiency, and will probably speak with contempt of the

identical "black draught," which his unhappy club doctor had advised him to take. But I need not dilate on this point, as numerous other parallels will occur to every one. There is, however, one curious and instructive difference—the patients no longer on their discharge put up a tablet in the chapel recording their gratitude to St. Thomas. It is the physician or the surgeon who puts up the votive inscription for the information of other sufferers, not in the chapel, but in the columns of the 'Lancet.'

CANCER OF THE UTERUS.

CLINICAL OBSERVATIONS DERIVED FROM FIFTY CASES
TREATED BY VAGINAL HYSTERECTOMY.

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THERE can be no doubt that cancer as a disease is increasing in prevalence, and in the case of women the pelvic organs and the breast are accountable for a considerable amount of this increase. The proportion of deaths from all forms of cancer in women increased from 668 per million in 1881 to 914 per million in 1895. In an admirable paper by Dr. Payne on "Cancer in Relation to Life Insurance" he discussed the possible causes of this increase. It is not my intention to enter into a discussion of these in this paper; suffice it to say, that cancer *is* more prevalent, and it is our duty to endeavour to attack the disease in its early stages, and as completely as possible, so as to obtain more satisfactory results from treatment.

During the past five or six years I have had the opportunity of observing a large number of cases of this disease, owing to the kindness of Dr. Cullingworth, who has handed over all cases of uterine cancer to my care. No one who

attends the gynæcological department of any hospital can fail to be struck by the large number of patients suffering from uterine cancer who present themselves for treatment only when the disease is so far advanced that any radical means of cure are out of the question. In a large proportion of these cases this is due to the fact that early symptoms cause very slight inconvenience, and certainly no alarm. There may be a little irregular blood-stained or watery discharge, but no pain. It is well known to all that if a patient has a certain amount of pain, neuralgic in origin, of no serious significance, referred to the ovarian region, she will very soon apply for treatment, and continue to solicit her medical attendant till she gets relief, whereas same patient would very likely entirely ignore the presence of a little watery or sanguineous discharge, though it might be indicative of serious and even fatal disease. Pain is *the* symptom which most often brings a patient to her doctor. It is, however, not only the patients who are responsible for the advanced stages at which the disease is discovered. It may be true that early diagnosis is sometimes difficult, but this does not excuse the fact that patients are sometimes treated for weeks, and even months, without any internal examination being made, when the symptoms are such that every medical man ought to recognise as suspicious, and calling for prompt and careful investigation of the cause.

During the past five years I have performed the operation of vaginal hysterectomy on fifty-two occasions. In thirteen of these the operation was performed for malignant disease of the body, and in thirty-six for malignant disease of the cervix; in the remaining three cases the uterus was removed for non-malignant disease. The last three cases presented some very interesting features, and I shall refer to these later.

In comparing the characters of the disease as it affects the body and cervix some striking contrasts are noticed, both as regards the age of the patients and the history of child-bearing.

All the cases of cancer of the body of the uterus occurred in patients who had passed the menopause, with a single exception, where the disease was found in a young woman of

thirty-two years of age. The following table shows the respective ages :

13 cases	{	In 7 cases age of patient between 50 and 55.			
		„ 1 case	„ „	55	„ 60.
		„ 3 cases	„ „	60	„ 65.
		„ 1 case	„ „	65	„ 70.
		„ 1 „	patient aged 32.		

The following table shows the age frequency in cancer of the cervix :

36 cases	{	In 8 cases age of patient between 30 and 40.			
		„ 13	„ „	40	„ 50.
		„ 10	„ „	50	„ 60.
		„ 5	„ „	60	„ 70.

Whereas malignant disease of the body is found, as a rule, in patients who have passed the period of menstrual activity, there is no age limit for the disease when it affects the cervix, the disease being common at all ages between thirty and seventy, and many cases are observed even below thirty years of age.

Next in regard to the question of child-bearing in the case of malignant disease of the body, we find that out of the thirteen cases—

7 patients had no children (2 were unmarried).

1 patient „ 1 child.

1 „ „ 2 children.

2 patients „ 3 „

1 patient „ 6 „

1 „ „ 11 „

If the last rather exceptional case is omitted the average of the other twelve patients is about one child each. Half the patients were nulliparous.

Observing next the series of cases of cancer of the cervix, we find that only two out of the thirty-six cases were nulliparous, and that the average number of children born is five for each patient. It seems a fair deduction to make, after considering these figures, that the unhealthy conditions of the cervix which result from lacerations and other injuries occurring during parturition predispose to malignant disease at a later period.

Cancer of the Body.

We will first consider the symptoms of this disease when it involves the body of the uterus. As a rule the first symptom which attracts the patient's notice is a vaginal discharge. This may be only slight in amount and watery, or it may be purulent and slightly offensive. In either case it is often blood-stained at times. In other cases the discharge is blood-stained from the first, varying in colour from brownish to bright red, and there may at times be excessive losses. In two of my cases the first evidence of serious disease was a severe flooding, after which the bleeding was slight though continuous. The discharge is much less frequently offensive in cancer of the body than when the disease affects the cervix, probably owing to the fact that infection is not so certainly conveyed from without in the former case. Where, however, there is much breaking-down growth, with a patulous cervical canal, this particular character of the discharge is rarely absent.

Pain is not uncommonly an early symptom in cancer of the body. In one of my cases pain referred to the hypogastric region was the very first symptom, followed later on by a blood-stained discharge. The pain, however, remained the most prominent symptom up to the time of the patient's admission to hospital six months later. The pain in cancer of the body appears to be greatest in those cases in which the disease invades deeply the muscular wall of the uterus. Where, however, the disease takes the form of a sprouting growth, filling up the interior of the uterine cavity, pain may be slight or absent. The pain may be dull and aching in character, or an acute bearing-down sensation, or it may be of a severe colicky nature. The pain is evidently due to spasm of the uterine muscle, set up by irritation from presence of the growth. It was present in eight out of the thirteen cases.

Loss of flesh and other cachectic symptoms cannot be considered of much value in the diagnosis of cancer, so far as relief of the patient is concerned. If diagnosis of the disease is only arrived at when definite evidence of malignant cachexia is present, few cases will be found which admit of

operative interference. The majority of patients suffering from malignant disease of the uterus look perfectly well, and do not think there is much amiss, and it is sometimes hard to convince them that they are suffering from a disease which, if not promptly treated, will inevitably end fatally.

In considering the *diagnosis* of malignant disease of the body of the uterus, it is important to remember that one is dealing with a disease which occurs for the most part in women who have passed the menopause,—in whom, therefore, under normal circumstances, one would expect to find an atrophied uterus. It sometimes happens that the diagnosis of cancer can be made at once; in other cases a preliminary examination under an anæsthetic may be necessary. The condition of the cervical canal is variable; in four out of the thirteen cases it was patulous to such an extent as to allow the introduction of the finger into the cavity of the uterus. In two of these cases the disease was sarcomatous, and the ulceration extended down the cervical canal; in the remaining two cases the disease was carcinoma, and the cervical canal was quite healthy. In the other nine cases where the cervical canal was closed, the symptoms and physical examination gave ground for suspicion of malignant disease, but a certain diagnosis could not be arrived at on the first examination of the patient. In every case there was enlargement of the body of the uterus sufficiently definite to be detected with certainty on bimanual examination. This sign, when found in a patient in whom you expect to find a small and atrophied uterus, is significant. We may state the following as an axiom, then, that a bulky uterus, or still more a distinct enlargement of the uterus, occurring in a patient who several years after the menopause begins to have a watery or blood-stained discharge, is an associated condition strongly suggestive of malignant disease.

Should the cervical canal be patulous to such an extent as to admit of digital exploration, a correct diagnosis may be made forthwith, and in case of doubt a portion of growth may be removed with the finger or curette, and examined microscopically. If, however, the cervical canal is closed, one may examine the inner surface of the uterus by passage

of the sound. With this instrument it is possible to say whether the surface is smooth or rough, and free bleeding following its withdrawal from the uterine cavity is considered by some to be diagnostic of malignant disease. The results arrived at by means of the sound are not in my opinion sufficiently conclusive to justify one in advising removal of the uterus on this evidence alone. Now it is imperative to arrive at a certain diagnosis without delay, and it will often be necessary for a medical man to bring a good deal of pressure to bear on his patient and her relations, in order that valuable time may not be lost. Patients are always ready to regard these irregular discharges occurring after the menopause as a return of climacteric signs, and a considerable amount of firmness is necessary to treat a patient in the best manner for her own good.

The proper course to adopt in all cases where there is any ground for suspicion of malignant disease is to dilate the cervical canal with tents or dilators sufficiently to allow the introduction of the finger. The condition of the interior of the uterus may present many different characters. In some cases the cavity is filled with a soft papillary growth, partly pedunculated and partly sessile; in others there may be a certain amount of sprouting growth, and the uterine wall around may be ulcerated and infiltrated with growth; in others, again, the whole of the inner surface is nodular and irregular without any obvious ulceration. Free hæmorrhage on digital exploration is always a highly suggestive and suspicious sign. The microscope should always be used to confirm the diagnosis where there is any doubt. As a matter of actual practice it is rarely required, the information obtained by examination with the finger being sufficiently definite to enable one to decide at once whether the case is malignant or not. There are two diseases which have to be excluded, namely, submucous fibroids and adenomatous growth of the endometrium. With regard to the former, the smooth rounded tumour projecting into the interior of the uterus, and the absence of any irregularity or ulceration of the mucous membrane, render the diagnosis comparatively simple. In the case of adenomatous growth, although there may be a certain amount of soft papillary

growth, there is no evidence of infiltration of the muscular wall, and after removal with the curette the deeper tissues have a normal consistence. In connection with these adenomatous growths of the endometrium, it is well to remember that when this disease occurs in women who have passed the menopause it is very liable to recur, and there is good ground for thinking that in some cases malignant disease may supervene.

When once the diagnosis has been made, the uterus should be removed by vaginal hysterectomy at the earliest possible date. This operation when performed for malignant disease of the body yields very satisfactory results. The healthy condition of the cervix allows the uterus to be drawn well down into view, which greatly facilitates the early stages of the operation. In the next place the broad ligaments can be secured at some distance from the uterus, which permits of more free removal of the disease than is possible in the case of cancer affecting the cervix. A further point is that the disease runs a slower course, and invades the cellular tissue of the broad ligament at a later period than is the case in cervical cancer; hence ultimate results are decidedly more favourable.

Microscopically, cases of cancer of the uterus occur under the forms of glandular carcinoma or columnar carcinoma.

I referred above to the possibility of malignant disease supervening in cases of adenomatous growths of the endometrium. The following two cases, of which a short account is appended, appear to be illustrative of this.

CASE 1.—Mrs. W—, æt. 53. Menopause at age of 48. In January, 1895, she was curetted by Dr. Cullingworth on account of irregular hæmorrhage which had continued for six months. The scrapings were examined microscopically, and appeared to be simple adenomatous growth of the endometrium. She remained quite well for over two years, but in November, 1897, had a return of watery and blood-stained vaginal discharge. In April, 1898, the uterus was explored by Dr. Cullingworth and myself, and a large amount of soft growth removed with the curette. The interior of the uterus after curetting felt perfectly healthy.

Microscopic examination by Mr. Shattock of a portion removed proved it to be columnar-celled epithelioma. No further operation was performed after receiving the microscopic report, as the patient preferred to wait, but it was arranged that if any further discharge occurred the uterus would be at once removed. Four months after this the watery discharge returned, and two months later (October, 1898) the uterus was removed *per vaginam*. The organ was much enlarged; its cavity was dilated and filled with a soft carcinomatous growth springing from the fundus.

Looking at the course of the disease in this case, it seems extremely unlikely that the growth removed with the curette in January, 1895, was anything but a simple one. Had it been malignant it would probably have recurred at an earlier period, whereas after the operation of curetting the patient remained free from any discharge for nearly three years. Further, it will be noticed that after the second curetting, at which time the growth removed was pronounced to be malignant, the disease recurred within four months, and was found to be a rapidly growing carcinoma.

CASE 2.—Miss W—, æt. 67. Menopause at age of 37. After the menopause, remained free from any discharge for twenty years. She then began to have slight irregular hæmorrhage. This continued off and on for six years, when she was curetted by Sir K. Thornton. She remained well for nine months after this, and then the hæmorrhage recurred. She saw many physicians from time to time, and as there was some irregular enlargement of the uterus the hæmorrhage was thought to be due to a fibroid, and she was advised to wait. In the early spring of 1898 the hæmorrhage became much more profuse, and she had serious floodings. In August, 1898, I was sent for to see her during one of these attacks, and found her very blanched and in a grave condition. The uterus was as large as an orange, the cervical canal patulous, and large clots came away on examination. The patient was examined under an anæsthetic the next day with a view to operation, the diagnosis resting between intra-uterine fibroid polyp and malignant disease. The finger could be easily introduced into the uterus, and a

mass of sprouting growth was felt growing from the fundus uteri, together with considerable ulceration and hardness of the uterine wall around. The uterus was forthwith removed by the vaginal route, and was seen to be the seat of very extensive carcinoma.

This case emphasises the importance of exploring the uterine cavity a second time where a recurrence of the blood-stained discharge occurs, even though the previous examination may not disclose evidence of the malignancy. The cancerous growth at the time of operation was very extensive, and had invaded the uterine wall deeply ; and, although the broad ligaments were not involved, the prognosis would have been much better if the uterus had been removed at an earlier period of the disease. It seems probable that in this case the hæmorrhage during the earlier years was due to adenomatous growth of the endometrium, and it was only during the last year or so that the disease had become malignant.

The two cases in this series in which the uterus was removed for non-malignant conditions were very interesting examples of recurrent disease occurring in the uterus without any evidence of malignant character. One was a case of adenomatous vegetation of the endometrium occurring in a patient aged 38. The patient was curetted four times for this condition, which caused most severe hæmorrhage and frequent floodings. After leading an invalid life for nearly three years she was anxious to have something done to give her permanent relief ; and, after carefully considering the matter, she decided to act on the advice given her and have the uterus removed. The other case occurred in a patient thirty years of age, who for over two years suffered from more or less continuous hæmorrhage from submucous fibroids, which, after removal by enucleation, continually recurred. After five operations the symptoms again returned, owing to the presence of another fibroid and a number of mucous polypi, and the uterus was removed *per vaginam* with most satisfactory results. The tumours removed were carefully examined by Mr. Shattock on several occasions, but there was no evidence of sarcomatous disease.

Cancer of the Cervix.

We will now leave the subject of malignant disease of the body, and consider the course and symptoms of the disease when it affects the cervix. Although more than half the cases in this series occurred in patients between the ages of forty and fifty-five, there is no age limit for this disease. The usual age for the menopause is between forty-five and fifty, but in a good number of women it may occur between forty and forty-five, or at a later period between fifty and fifty-five. It will therefore be readily seen how the most common age for cancerous disease of the cervix corresponds with the usual time for the occurrence of the menopause. Hence the unfortunate fact that a number of women will entirely disregard irregular hæmorrhages taking place at this time, and consider such discharge to be due to the "change of life." No physiological process is the cause of so much danger and suffering to women as the so-called "change of life." It is the veil which hides from their eyes—often unwilling to know the truth—the presence of serious disease. It cannot be too strongly insisted upon that continuous irregular hæmorrhages, and severe losses of blood followed by watery or blood-stained discharge, cannot be considered *normal* climacteric symptoms. The actual manner in which the menopause presents itself in different persons is very variable. The most common type is for the periods to get gradually less in amount, and the intervals between them to lengthen. In other cases the amount lost at the periods may be excessive and the duration lengthened, but this is succeeded by a longer interval than usual before the next period. In yet others the intervals between the periods may be shorter from the first, though the amount lost may not show any alteration; as time goes on the intervals gradually lengthen, and the amount of loss diminishes till at last the flow ceases entirely. In a smaller number of women the periods continue to be quite regular up to a certain time, when they cease quite suddenly; this sudden cessation may even follow a confinement or miscarriage. Although the mode of onset of the menopause may bear

different aspects, there is one feature common to them all, namely, the periodicity of the flow. If this fact is born in mind it will enable one to avoid treating cases for supposed climacteric symptoms, when all the time the patient is the victim of a serious malady. An absolute rule of practice should be, never to treat any cases of irregular hæmorrhagic discharge or watery and blood-stained discharge without careful examination *per vaginam*. Patients will often endeavour to postpone any examination of this kind, but if the risks of waiting are carefully pointed out this difficulty is easily overcome. Medical treatment of cases of this kind *without* examination simply means working in the dark, and cannot possibly be justified.

It is convenient in discussing cancer of the cervix to group one's patients in two classes, according as they occur before or after the menopause. The division is convenient, as the disease presents some different features according to the period in a woman's life at which it occurs. Speaking broadly one finds that where the disease occurs during the period of menstrual activity the extent of the disease bears some relation to the duration of symptoms. After the climacteric, however, very extensive disease may be associated with symptoms which are very slight and of short duration. It is also well to bear in mind the normal condition of the cervix in the two cases. Before the climacteric the cervix projects as a cylindrical body into the upper part of the vagina, and any enlargement associated with altered consistence and ulceration is easily recognised. After the menopause the vaginal cervix atrophies, and the external os is frequently only represented by a dimple in the roof of the vagina. If malignant disease develops at this period, the enlargement of the cervix and hardness is very readily overlooked in the early stages of the disease.

In the thirty-six cases of cancer of the cervix the symptoms in eight cases had persisted for three months before the patient came up for treatment, in fourteen cases they had lasted from three to six months, in eight from six to twelve months, and in six cases over a year. It is necessary to question a patient carefully in order to obtain an accurate date for the earliest symptom, as they will often omit to mention hæmorrhage on

coitus which may have been noticed for weeks or even months before the onset of the particular discharge for which the patient seeks advice.

The symptoms usually met with before the menopause are as follows :

First, *discharge*. This is usually blood-stained from the first, or it may be watery at first, and at a later period blood-stained. The amount of hæmorrhage is not usually severe at the commencement, but as the disease progresses floodings not uncommonly occur at varying intervals. Occasionally patients suffer from menorrhagia for some months before the irregular discharges begin. This was the case in only three of the cases of this series. In three cases the first evidence of serious disease was a dangerous flooding; in one of these the patient woke up in the night and found the bed saturated with blood, and in the other two it was discovered on waking in the morning. It is very probable that in each of these the sudden severe loss was due to sexual intercourse. In other patients the first hæmorrhage may occur during the act of straining in defæcation or micturition. Occasionally the discharge is offensive from the first, but more often this character of the discharge is found at a later period, when the growth is breaking down and sloughing. The presence of a very offensive discharge of long standing in cases of cancer of the cervix usually indicates extensive disease, too advanced for operative treatment.

After the menopause, hæmorrhage on coitus is not so often observed as an early symptom. This is probably due to the fact that the growth does not so often project into the upper part of the vagina as a sprouting friable mass, but more commonly occurs in the form of an infiltrating growth starting deeply in the glands of the cervix, and only causing ulceration of the cervix around the external os at a later stage. The amount of bleeding which occurs in the cases starting after the menopause is very much less than in the case of patients at an earlier period of life.

The next important symptom to consider is *pain*. Persistent pain occurring in the region of the sacrum or over one or other sacro-iliac synchondrosis indicates invasion of the

cellular tissue of the broad ligaments or utero-sacral ligaments, and when this symptom is present should always contra-indicate operation. In this connection one must mention the possibility of old-standing inflammatory disease being present in some cases, and the malignant disease being a later development. In two of my cases the body of the uterus was bound down by adhesions due to pelvic peritonitis, which was the cause of the pain present in each case, and there was no evidence of extension of the cancer beyond the limits of the cervix. In yet a third case the disease was complicated by the presence of a dermoid cyst of the left ovary, which had caused bearing-down pain for three months. These, however, are exceptional complications, and do not affect the general truth of the statement made above, that pain is a late symptom, and where it is persistent and keeps the patient awake at night we must be satisfied with palliative measures. Loss of flesh and cachectic signs have the same significance as in cases of cancer of the body, and it is not necessary to refer further to them here.

Looking next at the character of the growth, one finds that the earliest change is some enlargement and hardness of the cervix, and on examination with the speculum it will be seen to have a dusky hue and bleeds on examination. In the later stages, the evidences of malignant disease are more obvious. There is marked enlargement of one or both lips of the cervix, which feel hard and sometimes nodular. The mucous membrane over this enlarged portion may be smooth and bleed on examination, or there may be a shallow ulcerated area over the enlarged lip or around the external os. In some cases this ulceration round the external os is associated with some destruction of the cervix, and forms a small excavation, called a conical ulcer. A cervix may sometimes feel hard and nodular as the result of chronic inflammatory conditions, especially where associated with extensive lacerations the result of parturition; but in these conditions hæmorrhage on examination does not occur, or is extremely slight. Another important distinction is that a cancerous cervix, though hard, is friable, as is easily shown by pulling on it with a pair of volsellum forceps, whereas a cervix enlarged and hard, the result of inflammatory change, is not

friable. It is not necessary to dwell at any length on the character of malignant disease of the cervix in the advanced stages, where large sprouting masses of growth occupy the vagina, or where the whole cervix is excavated and the wall of the cervical canal replaced by sloughing masses of growth. At this stage of the disease errors of diagnosis are hardly likely to occur. Whatever the stage of the disease hæmorrhage in examination is a most valuable and constant sign.

It is necessary to say a few words as to the appearances met with after the menopause. The sprouting forms of growth are much less frequently met with at this period of life. More commonly the disease starts deeply in the glands of the cervix and gradually infiltrates the tissues of the cervix. In the early stages enlargement and hardening of the cervix are the only two signs. Later on, the surface of the growth may ulcerate towards the cervical canal, and the ulceration may extend only just down to the external os, and may easily be overlooked. On examination the absence of any sprouting growth or any very obvious ulceration may give rise to the conclusion that no cancer is present. If, however, one bears in mind the normal atrophic condition of the cervix which should be present at this period, the enlargement and hardness of the cervix, the hæmorrhage on examination, and the small ulcerated area in the neighbourhood of the external os or inside the cervical canal will be sufficient ground for suspecting malignant disease. It is specially true in these patients that the amount of disease discovered after operation is always greatly in excess of what might be expected from the physical examination of the case.

When it has been decided that the disease the patient is suffering from is carcinoma, the next thing is to form an opinion as to whether the case admits of operative treatment. The usual line of practice is that the only cases suitable for operative treatment are those in which the disease is limited to the uterus, and in which there is no extension to the cellular tissue of the broad ligament or utero-sacral ligaments. A careful bimanual examination should be made, together with a rectal examination, in

order to detect any thickenings or bands in the situation of the ligaments, and further to determine the mobility of the uterus. Free mobility of the uterus is always a favourable sign, and where it is present there is usually no evidence of infiltration of the broad ligaments, or at the most one or two bands may be present. There is, however, one portion of cellular tissue round the uterus which may be seriously implicated without causing any impairment of mobility of the uterus; I refer to the cellular tissue between the cervix and bladder. Where, therefore, one finds extensive disease of the anterior lip of the cervix and the uterus quite mobile, it is wise to give a guarded prognosis, as in the course of the operation the cellular tissue between the bladder and cervix may prove to be infiltrated, and removal of the uterus may be impossible or an unsatisfactory operation.

The view stated above regarding the cases which are suitable for operation may be scientifically sound, but if it is accepted as a hard and fast rule of practice, operative assistance being looked upon as unsuitable for any case in which one finds a little thickening in the situation of the broad or utero-sacral ligaments, a large number of patients will be deprived of a means of relief from their sufferings and possibly a means of lengthening their lives. One is bound to look upon all operative measures for the treatment of cancer as more or less palliative. Even where the disease is removed at quite an early stage recurrences are, unfortunately, too common. The important structures surrounding the uterus and the impossibility of wide excision with removal of lymphatics and glands necessarily make the prognosis less favourable than cancer occurring in other parts of the body. It seems to me that the cases suitable for operative treatment in cancer of the cervix may be divided into two groups. First, there are those cases in which the disease is circumscribed and limited entirely to the uterus, and in which there is no evidence of any extension to the cellular tissue around the uterus. All will agree that in these removal of the uterus is the right course to adopt, and this procedure offers a reasonable chance of cure, or at any rate freedom from recurrence for some long period.

Secondly, there are not a few cases in which the uterus

may be very fairly moveable, but in which a little thickening is found in one or other broad ligament or utero-sacral ligament. Some would hold that the presence of this thickening contra-indicates operation. It is not always easy to say definitely that every thickened band found round the uterus is due to malignant infiltration, as old inflammatory mischief may be present, and in some cases some cellulitis may develop from absorption in cases of sloughing growths of the cervix. It is well to remember that when the patient is suffering from continuous and severe losses, or from offensive discharges, her life is a misery to her, and the hæmorrhages are in themselves exhausting. In a case of this kind, if the uterus is freely moveable and can be brought down towards the vaginal outlet by means of the volsellum, the presence of a little thickening in one or other broad ligaments need not contra-indicate operation, as the removal of the uterus will relieve the patient from the discomfort and loss of health caused by persistent hæmorrhages and offensive discharge. It is necessary to inform the patient or her friends that the operation is undertaken as a palliative measure, and that its object is to afford the patient relief, both physical and mental, for the time being. One point must be insisted on in regard to the palliative operations for cancer, namely, where severe or persistent pain is present it is never advisable to operate, as in these cases there is certainly serious implication of the cellular tissue around the uterus, and removal of the cervix or uterus will not relieve the patient of her pain.

It would not be worth a patient's while to submit to any *palliative* operation unless the prospects of recovery from the operation were good and convalescence rapid. After the operation of vaginal hysterectomy the shock is practically *nil*, if care is taken that little hæmorrhage occurs during the operation. The patients are able to get up at the end of a fortnight, and are able to go home soon after three weeks.

There are a few details about the cases of cancer of the cervix which will now be referred to. Out of the thirty-six cases operated on, in four the disease was associated with pyometra. All the cases occurred in women after the menopause, in cases where the disease had infiltrated the

whole cervix and caused occlusion of the cervical canal. In one patient the cancer of the cervix was associated with a five months' pregnancy. The patient began to pass clots at the third month, then had no bleeding for a month, after which it recommenced and persisted up to time of admission. The anterior lip of the cervix was found to be the seat of a malignant growth. Abortion was induced at once, and ten days later the uterus was removed *per vaginam*. In spite of the cancer being limited to the anterior lip, and in a favourable stage for removal, the disease recurred within six months of the operation. In another case the diagnosis was rendered difficult owing to the absence of any unhealthy appearance on examining the vaginal portion of the cervix. The cervix was enlarged but did not bleed; hæmorrhage was seen coming from the external os. The patient was past the climacteric, and as it was thought possible that the bleeding came from the body of the uterus, the cervical canal was dilated with a tent. It was then found that the finger entered a cavity with irregular walls evidently infiltrated with malignant growth, and it was decided to remove the uterus. After removal it was seen that the disease had infiltrated all the cervical tissue and had ulcerated towards the cervical canal, but there was no ulceration round the external os.

It has been the practice of this hospital for some years past to remove the whole uterus in cases of carcinoma affecting the cervix. It used to be held that cancer of the cervix never extends upwards above the level of the internal os, and that therefore removal of the whole uterus is unnecessary. In several cases in this series the disease was found to extend above the level of the internal os, and in one there was a distinct growth in the body of the uterus quite distinct from the growth in the cervix, which would necessarily have been left if one had been satisfied with supra-vaginal amputation of the cervix. Of the cases in which the disease extended above the level of the internal os, in one the upper limit of the disease reached a level of three quarters of an inch above, in two it was half an inch above, and in two others it extended half way up to the fundus. In all of them total extirpation of the uterus was the only

operation which offered a chance of cure. One advantage claimed for supra-vaginal amputation is that the peritoneal cavity is not opened, and therefore the risk of the operation is less, and further that intestinal obstruction due to adhesions at a later stage is avoided. The question of opening the peritoneal cavity does not hold in all cases, as it is not uncommon for this accident to occur in the high amputation of the cervix. Whether there is any advantage in leaving the body of the uterus is a matter of opinion. Should pregnancy occur under such conditions it is more than probable that abortion will follow. Moreover another serious result may follow, as in a case reported at the Obstetrical Society by Dr. Spencer. The cervix was removed for cancer, and subsequently the patient became pregnant; atresia of the cervix resulted, owing to cicatricial change after the operation, and the child had to be delivered by Cæsarean section. Taking the whole matter into consideration, it seems more satisfactory to remove the whole organ where a part is diseased.

It has been recommended by some surgeons that cancer of the cervix should be dealt with on the same lines as cancer of the breast. They advise treating these cases by abdominal section, and removing uterus, broad ligaments, and hypogastric glands as completely as possible. No doubt, theoretically, this is an ideal operation. Practically it is an extremely difficult thing to be sure that all or nearly all the pelvic glands have been removed, and the high mortality of the operation would be a bar to its general use unless the ultimate results obtained were proved to be markedly better than those obtained by the less formidable operations in common use.

One is bound to admit that the number of recurrences which occur after operation for cancer of the cervix are very large. If cases are carefully selected, and only quite early cases treated by surgical operation, it is no doubt possible to obtain fairly good results. If, however, the field of operative interference is extended to cases of more extensive disease, though still limited to the uterus, the prognosis so far as recurrence is concerned is less favourable. Though it may not be possible to offer a chance of permanent

cure, it may still be possible to restore one's patient to good health for a longer or shorter time, and to relieve her from a great deal of mental and physical suffering.

It may be of interest to conclude with a few remarks as to the mortality in these operations. Out of this series of fifty-one consecutive cases three died after operation. In one the death was due to pulmonary embolism on the fifth day, in a second case the patient died of septic peritonitis, and in the third fatal case, the result was not due to the operation, but the operation was performed with the idea of saving the patient's life. The circumstances were these:—The patient developed peritonitis after exploration of the interior of the uterus in a case of carcinoma of the body. The growth extended through the uterine wall to the peritoneal coat, and from some slight traumatism during the exploration septic peritonitis set in. It was thought that removal of the uterus *per vaginam* might allow free drainage, and give the patient a chance of recovery. The peritonitis present at the time of operation slowly extended, and the patient died seven days later. I may add that the three deaths all occurred in the first fourteen operations, and that the last thirty-eight vaginal hysterectomies have all recovered. An account of the ultimate results of these operations must be left to a future occasion, as it is impossible at present to give a complete list, and some of the operations have been performed at too recent a date.

I have not attempted in this paper to give anything like an exhaustive account of cancer of the uterus. My object has been to direct attention to the clinical aspects of the disease, and to emphasise the importance of thorough and careful investigation of all cases of irregular hæmorrhagic or other abnormal discharges. Attention to these points will at any rate exonerate the medical man from helping to swell the unfortunately long list of disappointing cases, which we have to describe as “too advanced for operative treatment.”

THE OPERATION FOR UNUNITED RUPTURE OF THE FEMALE PERINEUM.

By CHARLES J. CULLINGWORTH, M.D., F.R.C.P.

It is in compliance with a frequently expressed wish that I attempt, in the following pages, to describe the operation I am in the habit of performing for the repair of complete rupture of the female perineum in those cases where either no attempt has been made to promote immediate union, or where, in spite of immediate suturing, the parts have failed to unite. The operation of perineorrhaphy is, of all operative procedures, one of the most difficult to describe clearly and intelligibly. No one will accuse the late Mr. Lawson Tait of want of clearness, either as a speaker or writer, and yet when he described his so-called flap-splitting operation before the Obstetrical Society of London in 1879, I well remember how one speaker after another confessed that he had been quite unable to follow the steps of the operation. We all hoped that when we had an opportunity of reading the paper in the 'Transactions' we should find it easier to understand. But it certainly was not so in my own case. For though I read it many times, I could not understand either the principle of the operation or its tech-

nique until I actually saw it performed some years later. If Mr. Tait's description was so difficult to follow, are the descriptions of the operation given in the ordinary text-books any less so? Let those answer who have conscientiously laboured to understand them.

I think, perhaps, it will help to make my method of operating easier to grasp if I endeavour to trace the gradual development of the principles upon which it is based. In doing this I shall be pardoned if I make one or two brief quotations from a paper read before the Manchester Medical Society in 1884, and published in the '*Medical Chronicle*' for November and December of that year. I had then operated nineteen times for laceration of the perineum (besides having on eighteen occasions assisted at the performance of the operation by my colleagues), and as the last nine of my operations had been performed by a different method from that I had previously adopted, and with an incomparably superior result, I had naturally formed a very definite opinion as to the comparative merits of the two methods. The method I had discarded consisted in dissecting away a flap of mucous membrane on each side, together with a narrow strip of skin, and in suturing the two raw surfaces together. The newer method was practically the same as that which I employ to-day, and which it is the object of this paper to describe.

"In the operation as performed by the earlier operators, the denuded surface was so narrow that even in the successful cases the restored perineum was necessarily thin and fragile, a mere bridge, indeed, above which the vagina formed a pouch." To obviate this, later operators "enlarged the area of the denuded surface by removing the tissues more freely from the sides of the laceration, and dissecting up a more considerable portion of the mucous membrane from the posterior vaginal wall." The operation I am about to describe still further increases the area of the denuded surface by substituting one large flap for the two lateral flaps, and by leaving it attached at its upper margin and turned forwards into the vagina. When the newly freshened perineal surfaces are brought together by sutures, the vaginal flap folds naturally upon itself, with mucous mem-

brane outside and raw surface within (see Pl. III, figs. 5 and 6). "The principal advantage gained by this procedure is the extension of the freshened surfaces, whereby the healing process is facilitated, it being a recognised principle" in plastic operations that the larger the surfaces in contact the greater the chance of satisfactory union. "A subsidiary, though by no means unimportant advantage, is the obstacle which the reflected flap offers to the soiling of the perineal wound by the vaginal discharges." It was to obtain this latter advantage that the idea of leaving a flap was first suggested.

In 1853 Langenbeck had devised an operation which he termed "perineo-synthesis," of which the express object was to shelter the newly united surfaces from the vaginal discharges. His suggestion was, after freshening the two sides of the rent with scissors, to dissect a semilunar flap of mucous membrane, twelve or thirteen millimetres in height, from the anterior surface of the recto-vaginal septum, and to lift it up so as to rest, in the form of an inclined plane, upon the vaginal aspect of the perineal wound, to which he fixed it by its convex border. This operation was abandoned as being too complicated, and as not affording sufficient security against the formation of recto-vaginal fistulæ.

"Eleven years later Mr. Jonathan Hutchinson, with the same object in view, proposed, in his article on the surgical diseases of women in 'Holmes's System of Surgery,' that instead of a special flap being made for the purpose, as was done by Langenbeck, the flap removed during the necessary freshening of the surfaces should itself be turned upwards into the vagina, trimmed at its sides, and made to slope forwards over the newly united parts."

It was, however, in a paper descriptive of a new method of perineorrhaphy by Dr. Delore, of Lyons, in the '*Annales de Gynécologie*' for April, 1876, that the real importance of saving the flap seems for the first time to have been appreciated. Delore advocated dissecting up two triangular flaps, turning them with their raw surfaces towards each other, and retaining them in position by deep and superficial sutures. This method had for its object the multiplication of points of contact without increasing the actual wound.

It would be impossible even to enumerate all the modifications in the method of operating that have since been suggested. The most important are those which bear the names of Emmet, Hegar, Hildebrandt, and Lawson Tait. Emmet's operation is that usually practised in the United States; Lawson Tait's so-called flap-splitting operation is the one now most generally adopted here. The operation about to be described differs from all these. I do not know to whom belongs the credit of its original suggestion. My knowledge of its essentials I owe to my friend Mr. J. H. Ewart, formerly my colleague at St. Mary's Hospital for Women, Manchester, and now of Eastbourne. Such alterations as I have since introduced concern only minor details, and do not affect the main principles which underlie the operation.

It is applicable both to cases of complete and incomplete rupture. I shall only describe it as performed when the tear has extended through the sphincter, the modifications necessary in the much more rarely required operation for incomplete rupture being practically self-evident.

The appearances presented in a case of complete rupture are well shown in the drawing (Plate I, fig. 1). The tear, at first linear in direction and more or less nearly vertical, assumes immediately after its occurrence the appearance of a triangular gap, the base being at the anus, and the apex representing the upper limit of the rent in the recto-vaginal septum. This gaping of the wound is due to muscular action, the torn fibres of the sphincter being retracted in opposite directions. The position of the torn end of the muscle is usually indicated by a dimple on each side of the anus, as indicated in the drawing (Plate I, fig. 1). One end being generally retracted to a greater extent than the other, the dimples are seldom symmetrical in position. The sides of the triangular gap are white, linear, and cicatricial, and mark the line where vaginal mucous membrane and rectal mucous membrane meet. Instead of dissecting up a flap of vaginal mucous membrane with a scalpel, this part of the operation is much accelerated by adopting a device of Mr. Lawson Tait's. Traction outwards is made on each side of the anus by means of a finger placed on the nates,

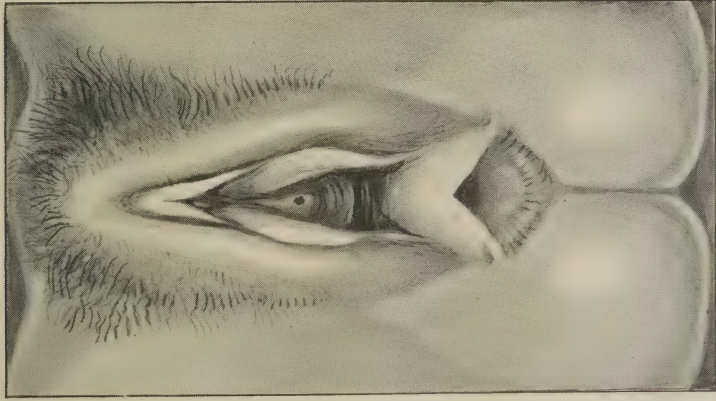
DESCRIPTION OF PLATE I,

Illustrating Dr. Cullingworth's paper on the Operation for
Ununited Rupture of the Female Perineum.

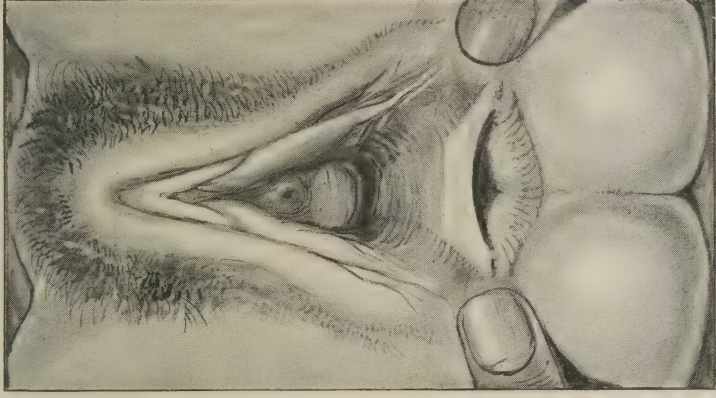
FIG. 1 shows the condition of the parts in complete perineal rupture. The triangular gap in the recto-vaginal septum, caused by the pulling asunder, from muscular retraction, of the sides of the rent, is well seen. A cicatricial dimple on each side marks the position of the ruptured ends of the sphincter ani muscle.

FIG. 2 shows the transverse white line produced by making traction on each side, so as to draw the lower corners of the gap more widely asunder. The first step of the operation is to plunge one blade of a pair of angular scissors deeply into the tissues of the septum at one end of this white line, and to separate the septum into two layers by cutting along the line from one end to the other.

(Drawn by R. E. Holding.)



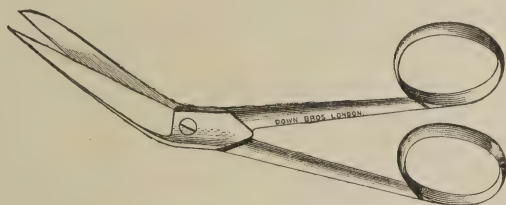
1.



2. R.E.H

until the two sides of the triangle are drawn out into a single tense, horizontal, white line (Plate I, fig. 2). One blade of a pointed pair of angular scissors (Fig. A) is then

FIG. A.



thrust deeply into the tissues at one extremity of this horizontal line, and a deep incision carried along its whole length. From each extremity of this first incision a cut is now made running forwards, and another running backwards, the whole series of incisions being at this stage roughly represented, as Mr. Tait has suggested, by a very wide H; thus)———(. The forward incisions will mark the outer boundaries of the vaginal flap; and their length will determine (1) how far the denudation of the posterior vaginal wall is to extend, and (2) what shall be the anterior limit of the new perineum. The temptation of the inexperienced is to make the new perineum extend too far forwards—to constitute it, as it were, an improvement on the original structure. This is but to court disaster, for the new and improved perineum is, from its greater length, even more likely to suffer injury during parturition than the old one. What, then, are to be our guides in regard to these forward incisions? It is generally easy to recognise the line where, at the side of the vaginal orifice, skin and mucous membrane meet, and this is the line to be aimed at. As to the extent to which it is to be carried forwards, it is exceedingly difficult to lay down anything like an absolute rule. Generally speaking, it will be sufficient to carry it forwards to the point where the labium minus normally terminates. The two backward cuts are much shorter. Their object is to prepare the way for laying bare the divided ends of the sphincter ani. A little angular promontory of

skin is generally left between each backward incision and the rectal mucous membrane (see Plate II, fig. 3). It will facilitate the uncovering and subsequent suturing of the ends of the divided muscle if this tag of tissue be snipped off.

Up to this point the operation has only occupied a very few minutes. The next step consists in completing the dissection of the vaginal flap. Taking the anterior ends of the lateral incisions as a guide, the vaginal mucous membrane is dissected up, with a few touches of the scalpel and with the left forefinger on guard in the rectum, until the line of reflection is nearly horizontal. This dissection is facilitated by letting an assistant hold up the vaginal flap by means of a temporary silk ligature (see Plate II, fig. 3). Now that the fingers of the assistants have been removed, and all lateral traction has ceased, the triangular shape of the gap in the torn septum will again be apparent. This gap will of course be represented in the vaginal flap just as certainly as in the anterior rectal wall. As this is a point of great importance, may I be permitted to emphasise it by a very simple illustration. If an inverted V be cut out of an ordinary sheet of note-paper, folded as for writing a letter, and held with its front edges towards the observer, and if the sheet of paper be now unfolded by turning the front leaf upwards, both leaves will necessarily present a gap of like shape and equal dimensions. It is just so with the recto-vaginal septum in a case of complete rupture of the perineum. I believe that upon the adequate recognition of this the success of the operation largely depends. I shall henceforward speak of the V-shaped gap in the flap as the vaginal V, and of the gap shaped like an inverted V in the anterior rectal wall as the rectal V. The essential difference between Mr. Tait's operation and the one here described is that in the former these gaps are disregarded, whilst in the latter considerable pains are taken to bring their respective edges together, and so to restore the integrity of both the vaginal flap and the anterior wall of the rectum. It is obvious that if no attempt be made to bring together the sides of the rectal V, the new perineum will be deprived of its proper thickness—will, in fact, have its cutaneous surface, not on a level with that of the original perineum, but with the apex

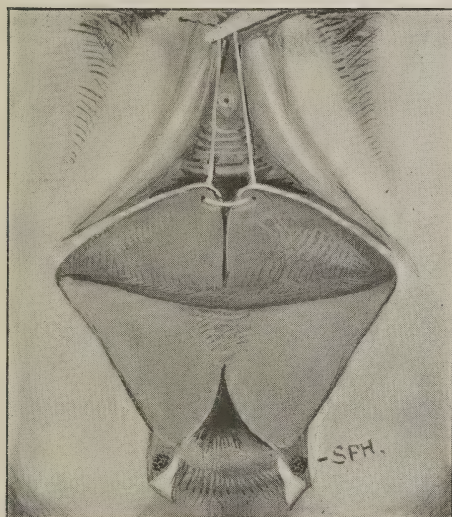
DESCRIPTION OF PLATE II,

Illustrating Dr. Cullingworth's paper on the Operation for Ununited Rupture of the Female Perineum.

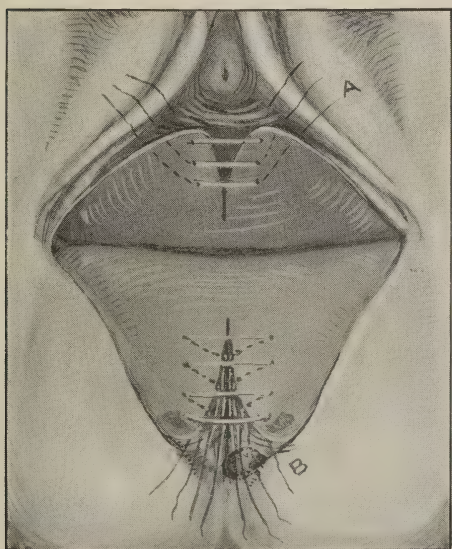
FIG. 3 shows the septum separated into two layers, and the vaginal flap lifted up by means of a temporary suture. The little angular flaps of skin between the short posterior incisions and the anal margin are dissected up with the object of exposing the ruptured ends of the sphincter. These little flaps are to be cut away, and the denuded surfaces thus left are to be brought into apposition by suture at a later stage of the operation.

FIG. 4 shows the rectal and vaginal sutures. The rectal sutures (B) are of catgut, and unite the rent in the anterior rectal wall. The uppermost is the first to be introduced. The needle enters the margin of the rent on the left side, traverses the tissues along the dotted line, emerges on the raw surface, re-enters the raw surface on the opposite side, and, following the dotted line, is finally brought out at a point on the right margin of the rent, exactly opposite to the point of original entry. Each suture is tied before the next is inserted. The ends lie inside the rectum. When they have all been tied, the ends may be cut short at the anus. The drawing, in order to avoid confusion, represents the sutures inserted but not tied. The vaginal sutures (A) are of silkworm gut. Their ends are tied together in a bunch and left curled up in the vagina, whence they can be easily withdrawn for removal.

(Drawn by R. E. Holding.)



3



4

R.E.H.

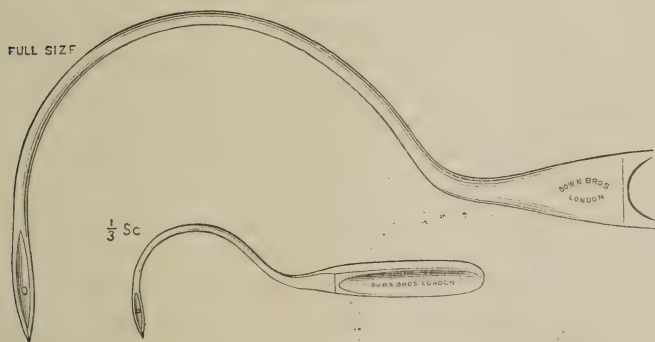


of the rent. On the other hand, neglect of the vaginal V will leave open a channel of communication (and possible infection) between the vagina and the newly united perineal wound. These are some of the main considerations that have prevented me from adopting Mr. Tait's method of operating in its entirety, notwithstanding the ease and rapidity with which it can be performed, and the many points in which it marked a distinct advance on most of the methods of operating previously in vogue.

The dissection having now been completed, and bleeding having been arrested wherever necessary either by temporary forceps pressure or fine silk ligature, the raw surfaces are well irrigated with sterilised hot water, and the work of introducing the sutures is proceeded with. The material used for the sutures is silkworm gut, except in the case of the rectal sutures, which, in order to avoid the necessity of removing them, are of chromicised catgut.

As regards the order in which the sutures are introduced, it is usually wise to begin with the buried perineal suture. The perineal needle (Fig. B) is introduced into the skin at

FIG. B.



about $\frac{1}{6}$ inch from the margin of the denuded surface on the patient's left side, at a point immediately below the angle of reflection of the vaginal flap. Keeping a finger in the rectum as a guide, the needle is passed completely round from one side to the other in the substance of the recto-vaginal septum, just above the angle of reflection of the flap, and its point made to emerge on the right side at a spot

corresponding to the aperture of entrance on the left. Care must be taken to prevent the needle emerging in any part of its course, *i. e.* in the rectum, or in the vagina, or in the wound, and to ascertain from time to time during its passage that it has not so emerged. The needle having been successfully passed, the eye is threaded with a stout silk-worm-gut suture and the needle withdrawn, leaving the suture in position. The suture is for the present left untied, each end being secured by a pair of small forceps. As the remaining perineal sutures will not necessitate the introduction of the fingers into the rectum, the rectal sutures may now be proceeded with. If there seems no fear of sacculation of the deeper part of the wound I sometimes dispense with the buried suture, and proceed at once with the rectal suturing. The rectal V is sutured from apex downwards. An ordinary full-curved surgeon's needle, threaded with cat-gut, and held in a firm needle-holder, is inserted at the edge of the rectal mucous membrane on one side of the rent, just below the apex.¹ The point of the needle is directed outwards, and as the success of these sutures greatly depends upon their being made to embrace a sufficient amount of tissue, it is brought out (see Plate II, fig. 4) at a point on the denuded surface a quarter of an inch external to the point of entrance. The needle is then carried across to the opposite side, made to enter the raw surface at a point corresponding to that from which it has just emerged, and brought out opposite its original point of entrance at the rectal margin. The needle is now removed and the suture tied. This will bring into perfect apposition the edges of the rectal rent near its apex. The ends of the suture will be in the rectum (see diagram, Fig. C). Other sutures—two or three in number, according to requirements—are then passed one by one from above downwards until the rectal V has been completely closed. Each suture must be tied before the next is introduced, and care must be taken that the ends of the suture or sutures already introduced are pushed back out of the way, so that they may all hang inde-

¹ The sutures should include no mucous membrane. Hence if the mucous membrane has become everted, it may be necessary to trim away the everted edge before passing the sutures.

pendently into the rectum, and not become entangled with the succeeding stitches. When all the rectal stitches have been introduced, the ends may be cut off at the anus. It is

FIG. C.



Diagram to show rectal stitch as seen in cross section.
a a, denuded surfaces. *b b*, rectal canal. *c*. rectal suture.

better not to cut the ends short at the moment of tying the sutures, as if this is done it is difficult to keep the ends from insinuating themselves between the raw surfaces. The ends should project into the rectum, and this is best ensured by keeping them long until they have all been tied. The diagram (Plate II, fig. 4) shows the rectal sutures all in position ready to be tied. In practice, as I have said, each suture is tied before the next one is introduced.

It will now be convenient to close the opening in the vaginal flap—the vaginal V. This is easily effected by ordinary interrupted sutures of silkworm gut introduced on the vaginal aspect of the flap, so that the ends may project into the vagina. With this object the flap, hitherto held forwards by an assistant, is now drawn down. The first suture is inserted close to the apex of the V (which now presents itself inverted, that is with the apex upwards). Each suture is tied before the next is introduced, and the ends are left uncut, so that they can all be tied together and left curled up in a bunch within the vagina. This greatly facilitates the removal of the stitches subsequently.

The rectal and vaginal gaps having now been stitched, the next step is to introduce the remaining perineal sutures. Mr. Tait, having satisfied himself that the pain experienced by patients after operation was due to the inclusion of skin in the sutures, was in the habit of introducing all his perineal sutures subcutaneously, and leaving the ends projecting between the edges of the wound. This plan, however, has the effect of burying the knots deeply in the tissues, and of making the process of subsequent removal very tedious and difficult. The object aimed at is sufficiently attained by reducing to a minimum the amount of skin included in the sutures. By including some, if ever so little, skin the knots are kept outside the wound, where they can be afterwards found without any troublesome groping. For the introduction of the remaining perineal sutures the perineal needle may again be used. The sutures are introduced exactly in the same way as the deep perineal suture already described, except that, instead of being buried along their whole course, they bridge across the wound at its deeper part. The first should be inserted about half an inch behind the buried suture, or, if no buried suture has been thought necessary, close to the angle of reflection of the flap, and the others at similar distances. The number required varies according to circumstances, but is usually about four (including the buried suture). The hindermost suture should bring together the ends of the torn sphincter and secure the closure of the front of the anus. This one should be tied at once, and the others may then be tied in order from behind forwards, the wound receiving a final irrigation and cleansing before it is closed.

The closure of the perineal wound will have had the effect of causing the vaginal flap to become folded upon itself, with its raw edges lying parallel with one another, in continuation forwards of the line of union of the perineal wound itself. A few interrupted sutures, as shown in Plate III, fig. 5, are useful to keep the edges together.* The suturing is now

* I have often been asked whether the projection of the vaginal flap does not cause inconvenience. As a matter of experience it is found that in a very short time the flap has so far subsided and contracted as to be represented by a mere ridge.

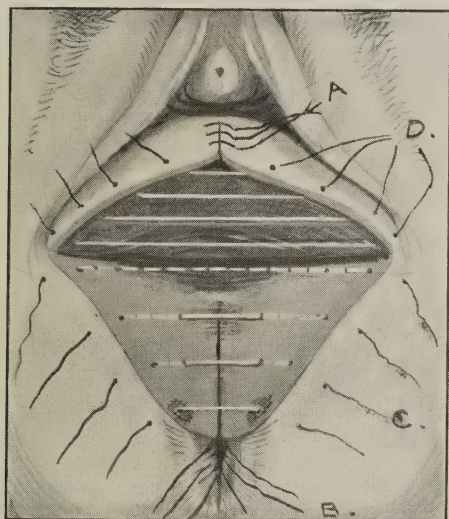
DESCRIPTION OF PLATE III,

Illustrating Dr. Cullingworth's paper on the Operation for
Ununited Rupture of the Female Perineum.

FIG. 5 shows the vaginal sutures (A) and rectal sutures (B) tied, and the perineal sutures (C) introduced. The dotted lines indicate the buried portion of the sutures. The uppermost perineal suture is buried in its whole course; the others bridge across the deeper part of the wound. The lateral borders of the vaginal flap are drawn together by a series of comparatively superficial sutures (D). These are the last to be tied. The sutures (C) and (D) are of silkworm gut.

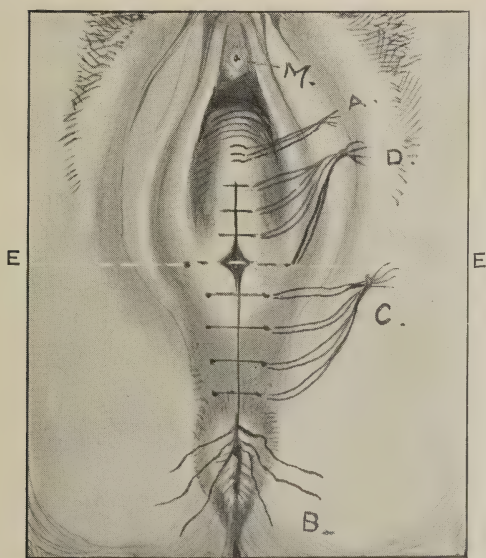
FIG. 6 shows the perineal wound closed, and the ends of the sutures tied together. (A) Vaginal sutures; (B) rectal sutures; (C) perineal sutures; (D) sutures bringing together lateral borders of folded vaginal flap; (E) anterior boundary of new perineum; (M) meatus urinarius. At the angle of reflection of the vaginal flap there is usually left a little lozenge-shaped gap, which requires to be closed by a single superficial suture.

(Drawn by R. E. Holding.)



5

R. E. H.



6

R. E. H.



completed, unless one or two superficial horsehair stitches are thought desirable in the intervals between the deeper sutures. The ends of these superficial stitches may be cut short, but those of the ordinary perineal sutures should be left long, so that they can now be all tied together. There are two reasons for leaving the ends long. In the first place, it is found that, when left long, they are much less likely to prick the skin and cause unnecessary irritation than when cut short; and secondly, the process of removal is greatly facilitated.

The less elaborate the dressing of the newly repaired perineum the better. Two little strips of lint, half an inch wide and about three inches long, anointed with vaseline and laid parallel with each other, one on each side of the wound, are all that is necessary.

There are several points in regard to the after treatment that are of considerable importance. The catheter is usually required for the first two or three days. Then as to the best means of keeping the parts clean. I am so jealous of any unnecessary interference that I instruct my nurses to content themselves with keeping the external parts clean by the frequent use of wool sponges and warm water, more particularly after each act of micturition. Vaginal douching is only resorted to where there is a purulent or offensive discharge. It was once the fashion to tie the patient's ankles together, and to deprecate all voluntary movement of the lower limbs during convalescence. Such restrictions are quite unnecessary. My patients are at liberty to assume any attitude they please provided they remain absolutely recumbent for at least fourteen days. They can either lie on the back or the side, and with their thighs and legs either bent or extended. Change of attitude within the range indicated in no way imperils the result of the operation. I have tried the plan of going even further, and allowing patients in simple straightforward cases to assume the sitting posture on the tenth or twelfth day, but have invariably regretted the experiment. It is, I believe, unsafe to permit the patient to sit up, even in bed, earlier than the fourteenth day.

Perhaps the most important point of all in the manage-

ment of the period of convalescence relates to the question of aperients. I was early impressed with the disastrous results of the old practice of keeping the bowels unopened for a week or ten days. On the other hand, I am persuaded, after repeated trials, that it is quite unnecessary, often very irritating, and not seldom positively injurious, to fly to the other extreme, and adopt the plan advocated by Mr. Tait, of giving small doses of castor oil every day from the very first. The object to be aimed at is to ensure that the first fæcal evacuation shall be passed painlessly, and without the necessity of any straining effort. To secure this no plan has been found to answer so well as that of administering a full dose of castor oil (a fluid ounce) early in the morning of the fourth day (counting the day of operation as the first day), that is, about sixty-five hours after the operation. Thus if, as is usually the practice in Adelaide Ward, the operation takes place in the afternoon of Thursday, the aperient is given early on Sunday morning. This is almost invariably found to result in the easy passage of a semi-solid motion within the course of about two hours. The patient is instructed to make no straining efforts, and indeed seldom feels tempted to make any. If this quantity of castor oil has no effect, the dose is to be repeated in four hours. Enemata are, if possible, to be avoided from fear of their causing local disturbance. An aperient every other day will usually suffice during the remainder of the time the patient is in bed. The sutures are generally removed on the eighth day. I have never been able to satisfy myself that it served any useful purpose to retain them longer, except under special circumstances. The vaginal stitches may be left a few days longer if it be felt that the slight disturbance of parts necessarily involved in their removal is likely to endanger the integrity of the newly united wound. Sometimes when the perineal sutures are removed, it becomes apparent that healing is imperfect in the central portion. This need cause no anxiety; the little pit becomes quickly filled up by granulations, and the resulting perineum suffers no detriment. Very occasionally a little fæcal discharge is found oozing from the perineal wound. This is, of course, somewhat disquieting, but the discharge usually

ceases without any active intervention. It is otherwise if the fæcal discharge is within the vagina. This means that there is a direct communication between vagina and rectum, and spontaneous closure in such a case is less frequent. Fortunately this is an accident of extremely rare occurrence when the operation has been performed with ordinary care on the principles here laid down.

The one great object in undertaking the operation of perineorrhaphy is to restore to the patient complete control over the contents of the bowel. If this result is not attained, however excellent may be the appearance of the new perineum, the operation must be pronounced a failure. Once now and then a disappointment of this kind is encountered, and any improvement in technique that has for its object to render this impossible is worthy of the most serious consideration.

In some remarks made at the Obstetrical Society of London so long ago as 1879, the late Dr. Wiltshire called attention to the importance of vivifying the torn and retracted ends of the sphincter, so as to render the muscular fibres actually apparent to the eye, and then uniting them by silk sutures (see '*Trans. Obst. Soc. Lond.,*' vol. xxi, for 1879, p. 301).

A suggestion of a similar kind has been recently made by Dr. Howard Kelly, of the Johns Hopkins Hospital, Baltimore. In a paper read before the American Gynecological Society on the 24th of May, 1899, Dr. Kelly expressed his conviction "that the best method of treatment of a torn sphincter is by liberating it from the surrounding tissue, and then uniting the freed ends by buried catgut sutures;" and "that the results of this method of suturing are far better than those obtainable by any of the methods generally practised, which depend upon the approximation of broad surfaces, including the sphincter ends, without using any special plan of suturing to hold the ends in accurate apposition." Dr. Kelly's method is fully described and illustrated in the first number of the '*Johns Hopkins Bulletin*' for 1899, and further modifications of it are suggested in the paper above quoted (see '*American Journal of Obstetrics,*' vol. xl, No. 2, 1899). Eleven suc-

cessful cases are described in the earlier paper, and twelve (additional) cases in the later.

It only remains for me to say a word as to the most suitable time to choose for submitting the patient to operation. In the first place it may be laid down as an axiom that the operation should not be undertaken until the cicatricial process is complete. If this rule is not adhered to, the operator will find the tissues soft and friable, and quite unsuited for the strain of a plastic operation. Patients are often importunate in their desire for an early operation, but it must be remembered that to yield to this importunity is to court failure. My own rule is never to operate until two months after the occurrence of the accident. With regard to the question as to whether it is ever too late to operate, I should say that, however long a time has elapsed since the injury took place, it would not be right, if a patient desired an operation, to refuse to do it. But whenever practicable the operation should be performed within the first few months, otherwise the muscles will be liable to have become atrophied and the result will be less likely to prove satisfactory.

The ultimate success of the operation for complete perineal rupture is to be estimated (1) by the extent to which the patient regains control over the bowel, and (2) by the durability of the new perineum during subsequent child-bearing. Judged by these criteria, the operation I have here attempted to describe is more uniformly successful than any other with which I am personally acquainted. It has, moreover, the advantages of being simple, conservative, adaptable to every kind of case, and all but absolutely certain of effecting immediate union.

This seems the proper place to indicate what amount of benefit may be expected from restoration of the partially ruptured perineum in cases of so-called prolapse of the uterus. Injury to the perineum is never sufficient in itself to cause prolapse. There must be some antecedent relaxation and yielding of the tissues constituting the pelvic floor. It is from not bearing this in mind that operators have so often been disappointed at finding that prolapse of the uterus is not cured by perineorrhaphy. What, then, is the

use of the operation in these cases? Its use is (1) to afford support to the anterior wall of the vagina and so lessen the tendency to cystocele, and (2) to enable a pessary to be worn in cases where such an instrument is needed, and where, owing to the damage to the perineum, it has been hitherto impossible for the patient to retain one. These may seem small advantages, but, from a patient's point of view, they are often of great importance, and represent all the difference between misery and comfort.

In operating upon women within the child-bearing age, it is, as I have said, undesirable to unduly prolong the perineum anteriorly. Where the operation is undertaken for the relief of prolapse in women past that age the case is different. Here the perineum may sometimes be elongated with advantage.

I have to express my obligations to Messrs. Down Brothers for kindly permitting me to reproduce from their catalogue the two drawings of instruments, and for supplying me with electros from their blocks. I have also to thank Mr. R. E. Holding, the artist, for the patient care with which he has worked at the drawings, and the successful manner in which he has illustrated the stages of the operation.

ON THE
INCIDENCE AND DISTRIBUTION OF THE
FRACTURES AND DISLOCATIONS

TREATED AT ST. THOMAS'S HOSPITAL DURING THE YEARS
1889—1898 INCLUSIVE.

By G. H. MAKINS,
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AND

F. C. ABBOTT, M.S.,
ASSISTANT SURGEON TO THE HOSPITAL.

IN 1889 special forms were introduced into the Casualty Department at St. Thomas's Hospital, on which the fractures and dislocations have been recorded in greater detail than the other casualties treated without admission to the wards.

It is on a complete decade of these records, together with the in-patient records for the same period, that this paper is based.

In compiling any large series of statistics such as this, the work of many hands, and extending over a considerable period of time, it is impossible to prevent certain errors from creeping in.

The authors have endeavoured to eliminate such sources of error as far as possible, and where this was impossible to warn the reader of their existence.

With regard to the question of total numbers, the recording of any fracture or dislocation on the special sheets depends on the individual house surgeon or dresser, while the total number of accidents treated is derived from the records of the Steward's Office. These latter are more automatically registered, and, therefore, sins of omission will tell against the totals of fracture and dislocation, which thus show a slightly smaller proportion to the total injuries treated than has actually been the case.

On such questions as sex, side of body, and age, the figures can be absolutely relied upon. Where these facts are not stated the omissions are shown in the tables, and the doctrine of averages prevents them from making any material difference.

As regards mortality, it is possible that we sometimes have not heard of the after death of cases treated as out-patients. This may make the mortality shown for some of the fractures, especially those of the upper extremity, too low. It will not affect the more serious fractures of head, trunk, and lower extremity, all of which are admitted to the wards. As, however, the most serious cases even of the upper extremity injuries are admitted at once, and others are taken in subsequently when found to be going wrong, this error is not a large one.

It is when we come to such details as the actual variety of a dislocation or position of a fracture in any particular bone that inaccuracies must occur.

Many of the records are made by men young in the profession, and where we meet with rare, sometimes even startling, statements unconfirmed by any senior, we are bound to distrust them, at any rate to the extent of "non-proven." No such doubt arises about in-patient cases, where the records are the result of examination by experienced

men, and where any rare diagnosis passes through the fire of healthy criticism.

For this reason certain details are not published, except where the authors are able to make themselves reasonably sure.

Changes in the methods of classification, introduced with the best intentions by different registrars, sometimes prevent facts clearly shown for certain years from being available over the whole period. When this is so the available numbers are used and are of value up to the numbers they profess to deal with.

Some of the tables have been modelled on and contrasted with those made by Bruns and Krönlein in their monographs forming the twenty-sixth and twenty-seventh parts of Billroth and Luecke's '*Deutsche Chirurgie*,' and to these writers the authors would make full acknowledgment.

During the ten years, 1889 to 1898, under consideration, 119,404 surgical casualties were treated at St. Thomas's Hospital, and of these 1207 or 1·01 per cent. were dislocations of the joints, and 10,410 or 8·72 per cent. were fractures.

Dislocations.

During the ten years under consideration 119,404 surgical casualties were treated at the hospital, and amongst these 1207 or 1·01 per cent. were dislocations of the joints.

Of the entire number of accidents 8127 were admitted into the wards of the hospital, of which number dislocations accounted for 155 or 1·90 per cent.; while 111,277 were treated in the Casualty Department, and of these 1052 or ·94 per cent. were dislocations.

The subjoined table shows the general distribution of the dislocations over the body, also the ages at which they occurred, and the relative frequency of each.

TABLE I.—Table of 1207 dislocations.

	Total.	Sex.		Side of body.			Age.									Percentage occurrence.
		M.	F.	R.	L.	N. S.	-5	-10	-20	-30	-40	-50	-60	+60	N. S.	
Clavicle and scapula .	50	39	11	22	18	10	—	4	7	17	6	5	6	4	1	4.14
Humerus (shoulder) .	539	357	182	263	244	32	1	—	13	59	81	113	122	131	19	44.65
Radius and ulna (elbow) .	222	186	36	77	125	20	5	49	112	13	19	12	5	1	6	18.89
Radius alone .	49	34	15	19	25	5	11	13	14	5	3	—	—	—	3	4.05
Ulna alone .	26	18	8	12	11	3	2	8	8	4	4	—	—	—	—	2.15
Carpus .	13	11	2	3	5	5	—	2	4	—	2	3	1	—	1	1.07
Fingers and thumb .	217	167	50	95	107	15	5	14	32	54	50	31	21	10	—	17.97
Totals for upper extremity .	1116	812	304	491	535	90	24	90	190	152	165	164	155	146	30	92.46
Lower jaw . . .	*42	20	22	4	9	8	—	1	4	16	11	4	2	3	1	3.47
Spine . . .	2	2	—	—	—	—	—	—	1	—	—	1	—	—	—	.16
Pubic symphysis .	2	2	—	—	—	—	1	—	1	—	—	—	—	—	—	.16
Totals for trunk .	46	24	22	4	9	8	1	1	6	16	11	5	2	3	1	3.81
Femur (hip) . . .	15	11	4	5	7	3	3	4	1	2	1	3	—	—	1	1.24
Tibia (knee) . . .	3	1	2	2	—	1	—	1	1	—	—	—	1	1	—	.24
Patella . . .	4	3	1	1	1	2	—	—	1	2	—	—	—	—	1	.33
Fibula . . .	1	1	—	—	—	1	—	—	—	1	—	—	—	—	—	.08
Tarsus—																
Ankle . . .	10	7	3	—	—	10	—	—	2	2	3	—	1	1	1	.82
Subastragaloid . . .	6	6	—	—	—	6	—	—	—	—	3	1	1	1	1	.49
Astragalus . . .	3	1	2	—	—	2	—	—	—	1	1	1	1	—	—	.24
Toes . . .	3	3	—	2	—	1	1	—	1	—	—	—	—	—	—	.24
Totals for lower extremity .	45	33	12	11	8	26	4	4	6	8	9	4	3	3	4	3.72
Grand total . . .	1207	869	338	506	552	124	29	95	202	176	185	173	160	152	35	—
Percentage . . .	1207	71.99	28	47.82	52.17	10.27	2.47	8.10	17.23	15.01	15.77	14.75	13.65	12.97	2.89	—

* Bilateral 21.

With regard to the general distribution over the regions of the body it will be useful to quote the statistics in most general use for the purpose of comparison.

TABLE II.

Authors.	Upper extremity.	Lower extremity.	Trunk.	Source of statistics.
Malgaigne { 1 . . .	85·7	12·6	1·6	Hôtel Dieu, Paris.
{ 2 . . .	76·6	18·3	5	Hôpital St. Louis, Paris.
Norris { 1 . . .	73·6	23	3·3	} Pennsylvania Hospital.
{ 2 . . .	91·5	8·4	—	
Gurlt	80	18·5	1·6	Berlin Hospital.
Morris	85·6	10	4·31	Middlesex Hospital, London.
Krönlein	92·2	5	2·8	Klinik and Poliklinik, Berlin.
Makins and Abbott	92·46	3·72	3·81	St. Thomas's Hospital, London.

The most striking point in the above comparison is the steady decrease shown in the proportional frequency of dislocations of the lower extremity in the more recent observations. The statistics which most closely coincide with our own are those of Krönlein, and this, no doubt, is due to the fact that equal care was taken in the collection of each that all dislocations of the upper extremity should be included.

A considerable divergence is, however, apparent in the incidence of dislocations of the trunk and lower extremity. Up to the present time Krönlein's statistics were those giving the lowest proportionate representation to the lower extremity, viz. 5 per cent., but in the St. Thomas's series this proportion is further lowered to 3·72 per cent. The difference appears to depend mainly on the comparatively small number of dislocations of the hip and knee-joints contained in our series; thus Krönlein met with 7 dislocations of the hip and 4 of the knee in a total of 400, while at St. Thomas's only 15 of the hip and 3 of the knee were observed in the much larger number of 1207. This may be a mere matter of chance, but it must be borne in mind that our series extends over a period of ten years while that of Krönlein extends over five and a

half only, and the average annual incidence at St. Thomas's amounts to 120, but at the Berlin Klinik to 65 only; which would tend to place the element of chance rather on the side of the Berlin than the London statistics.

As to dislocations of the bones of the trunk it will be noted that a considerably greater proportionate incidence is shown both in our series and that of Morris for the Middlesex Hospital than is met with in Krönlein's Berlin numbers. This depends entirely on the larger numbers of dislocations of the jaw, and may possibly be explained by some racial difference in the conformation of the temporo-maxillary articulation; and, as remarked later, the occurrence of this dislocation appears to be little influenced by changes due to age.

With regard to the statistics of the upper extremity given by Morris, it may be remarked that the low incidence in comparison with Krönlein's and our own seems to depend on the small number of dislocations of the elbow-joint and fingers included in his series and is difficult of explanation.

The actual relative order of frequency of dislocation of the different joints in our series comes out as follows:

TABLE III.

		Percentage.	
Humerus (shoulder)	539	44·65	
Radius and ulna (elbow)	222	18·39	
Fingers and thumb	217	17·97	Fingers 121; thumb 92.
Clavicle and scapula	50	4·14	Clavicle 14; acromion 26.
Radius alone	49	4·05	
Lower jaw	42	3·47	
Ulna alone	26	2·15	At elbow 24; at wrist 2.
Femur (hip)	15	1·24	
Carpus (wrist)	13	1·07	
Tarsus—at ankle	10	·82	
Subastragaloid	6	·49	
Astragalus	3	·24	
Patella	4	·33	
Toes	3	·24	
Knee	3	·24	
Spine	2	·16	
Pubic symphysis	2	·16	
Fibula	1	·08	
Total	1207		

The influence of sex on the occurrence of dislocations.—Of our whole number of 1207 dislocations, 869 or 72 per cent. occurred in males, 338 or 28 per cent. occurred in females. This, on the whole, bears out the opinion of Malgaigne and Gurlt that dislocations are met with about three times as frequently in men as in women. Krönlein finds the relation in his series to be about five to one in Berlin, but he points out that in that city the numbers of the two sexes are nearly equal, thus males 484,494, females 479,679. In London, at the census of 1891, the proportion was less near, thus of the entire population of 4,211,473, 1,990,748 were males, and 2,220,995 were females. To commence with, then, there is a total preponderance of 230,247 women in the population, and an examination of the age statistics shows that this preponderance is annually more considerable in the later years, the statistics showing conclusively that women are longer lived than men in London.

TABLE IV.—*Population of London, males and females, 1891.*

Age.	Males.	Females.	Total.
Under 1 year	53,929	54,924	108,853
1— 5 years	249,309	252,313	501,622
5— 10 "	225,895	228,265	454,160
10— 20 "	403,652	429,593	833,245
20— 30 "	372,387	444,835 ¹	817,222
30— 40 "	288,383	320,850	609,233
40— 50 "	212,682	231,357	444,039
50— 60 "	131,294	155,020	286,314
60— 70 "	75,243	98,566	173,809
70— 80 "	30,180	48,465	78,645
80— 90 "	5,334	10,905	16,239
90—100 "	284	810	1,094
Above 100 "	5	16	21

In this particular, therefore, our statistics differ from those of Krönlein, since not only are there a greater number of women in the population from which our cases were drawn, but beyond this of women in the latter half of life, in whom the all-influencing dislocation of the shoulder is a comparatively frequent occurrence. In our statistics

¹ This increase is partly due to the annual migration of young women to enter domestic service, and is somewhat peculiar to London.

dislocations of the shoulder occur almost in the proportion of one female to two males.

In one other particular bearing on the question of sex, our statistics are not in agreement with those of any of the authors quoted; thus, of 42 dislocations of the lower jaw 20 occurred in males against 22 in females; this is a point of some importance, as in the older statistics this dislocation has been said to be four times as frequent in females, and this deviation from the common rule has been considered to much increase the proportional frequency of dislocations as a whole in women.

Influence of age on the occurrence of dislocations.—Malgaigne in his statistics shows that the occurrence of all dislocations increases in frequency up to the commencement of the fifth decennium of life; Krönlein's statistics show an increase up to the third, but in our series the highest incidence is met with in the second decennium, and depends entirely on the very large number of dislocations of the elbow-joint which occurred in this period. The fall from twenty is a very gradual one in our series until the age of sixty is reached, and almost as large a number was met with in the remaining years of life as in the ten years preceding sixty.

Sir Astley Cooper laid down the law that old people were far less disposed to the occurrence of dislocations than those of middle life; this statement was, however, disputed by Malgaigne on the ground that the absolute number of dislocations at any age was no guide unless the age of the population from which the cases were drawn is taken into account for comparison. (See Table V).

Krönlein in his statistics has compared the incidence of dislocations in Berlin with the population of the town with regard to the relative number of individuals still living in the various decades. By this means he shows that the predisposition to the occurrence of dislocation steadily increases in the first seven decades.

TABLE V.

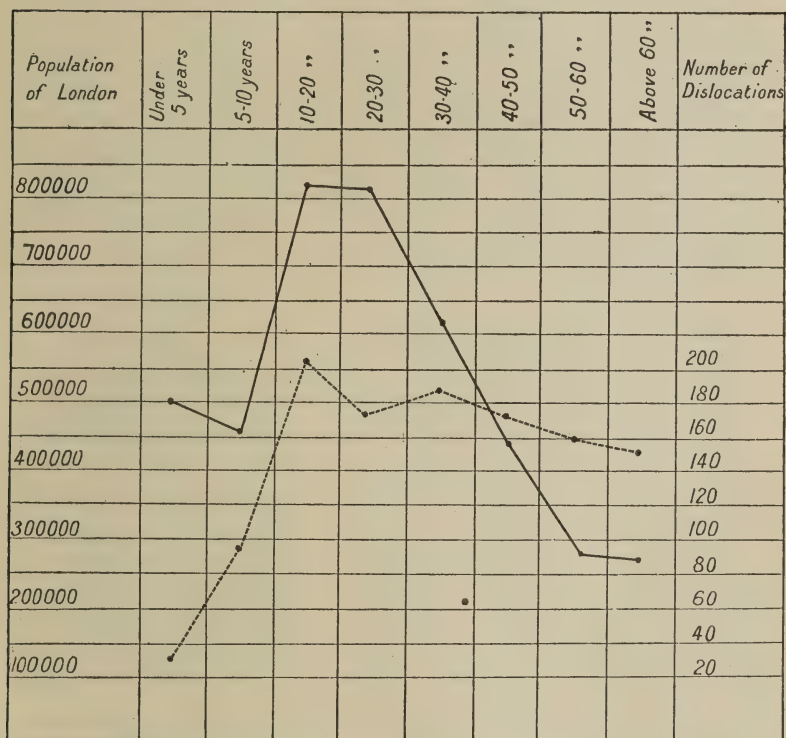


Chart showing the distribution of population and of dislocations at different age periods. The continuous line refers to the population shown by the figures on the left, the dotted line refers to the number of dislocations shown by the figures on the right.

TABLE VI.—*Krönlein*.

Age.	Absolute frequency of dislocations.	Luxation co-efficiency.
1—10	44	10
10—20	69	18
20—30	88	15
30—40	65	16
40—50	60	27
50—60	48	35
60—70	23	35
70—80	3	10

We have taken the population of London in the same way, and for the sake of uniformity in our own paper compare the absolute frequency of occurrence with the relative number of the population in the form of percentages. The relation is also shown in the form of a curve in Table V. As a result of the method in which our statistics have been recorded, we have been obliged to mass all cases occurring in persons over the age of sixty, but the result is to thoroughly confirm that already obtained by Krönlein and suggested by Malgaigne.

TABLE VII.

Age.	Total number of dislocations.	Proportionate occurrence to total number.	Population of London.	Proportionate index of occurrence to population living.
		Per cent.		
1—5	29	2·47	501,622	1
5—10	95	8·10	454,160	3·6
10—20	202	17·23	833,245	4·2
20—30	176	15·01	817,222	3·7
30—40	185	15·77	609,233	5·2
40—50	173	14·75	444,039	6·8
50—60	160	13·65	286,314	9·1
above 60 ¹	152	12·97	269,808	9·7

A glance at Table VII at once shows that the actual *proportionate* incidence of dislocations in a population steadily increases in direct ratio with advancing years, the only exception to an even advance being seen in the decade from ten to twenty, and the large proportion claimed by this period is accounted for by the extreme frequency of dislocation of the bones at the elbow-joint. Above twenty the increase depends on dislocations of the shoulder-joint alone. It is a remarkable fact that dislocations of the humerus at the shoulder after the age of sixty account for 86·18 per cent. of 152 dislocations of all joints in our series, the fingers coming second with 10, or 6·57 per cent., and 11, or 7·23 per cent., account for the whole of the remainder of the body.

¹ Four decades massed. See Table IV for relative totals.

Relative frequency of dislocations on the right or left side of the body.—This question was discussed both by Malgaigne and Gurlt, but neither author could come to any definite conclusion in consequence of the incomplete records at their disposal. Krönlein investigated the point in the last 100 of the 400 cases on which his table is based, and found that of this number 54 per cent. occurred on the left, 46 per cent on the right side of the body.

In our series the side of the body is stated in 1041 of the whole 1207 dislocations, and of these 544, or 52·25 per cent., were of the left, and 479, or 47·44 per cent., were of the right side of the body.

The larger material at our disposal therefore confirms the result obtained by Krönlein, although at the same time it slightly decreases the proportionate preponderance given to the left side of the body by that author. The difference of 5 per cent. is probably not of great practical importance, but it is of ætiological interest as tending to support the theory that muscular education and capacity lessen the possibilities of the occurrence of dislocation in general.

The theory of muscular incapacity is, moreover, supported by the fact that the preponderance to the left side of the body is specially marked in the case of dislocations at the elbow, a joint particularly prone to injury at an age when the muscles have neither developed their full strength nor capacity to control, support, and protect the articulation on which they act. Thus of 202 dislocations of the elbow we find 125, or 61·88 per cent., were of the left joint, and only 77, or 38·1 per cent., of the right; isolated dislocations of the radius at the same joint substantiate the result observed in the case of the two bones.

If, on the other hand, we take the shoulder-joint, one especially prone to dislocation in later life, we find the conditions reversed, possibly from the fact that the more educated muscles are less liable to be taken by surprise, and that with experience the individual employs the more highly educated of the two limbs to save the body from injury. Thus of 496 dislocations of the shoulder 259, or 52·21 per cent., were of the right side, and 236, or 47·58 per cent., of the left side of the body.

Complications of dislocation.—The dislocations were compound in 41 instances, or 3·39 per cent. of the whole number, the following being the joints affected :

Elbow	2	Toe	1
Digits of hand	28	Ankle	2
Wrist	4	Subastragaloid	1
Hip	1	Astragalus	1
Fibula	1		

The numbers show at once the extreme rarity of compound dislocation, apart from injuries the result of direct violence ; thus, of the whole 41 cases, 4 only are not of the hand or foot ; the case of compound dislocation of the hip was one in which the dislocation formed only one of multiple severe injuries, and the dislocation of the fibula formed only a complication of a very severe lacerated wound of the lower extremity.

Contemporaneous fracture.—Coexistent fractures are noted in 55 cases, or 4·55 per cent., and the great majority of these were of the variety known as “*par arrachement*.” The fractures occurred as follows :

Elbow	30	Wrist	3
Radius	9	Ankle	6
Ulna	4		

It will be noted that of the 55 fractures no less than 39, or 70·9 per cent., occurred in connection with the elbow or superior radio-ulnar joint. Of these, some further details will be given below.

In concluding these general remarks, it should be mentioned that the total number of dislocations includes 41 cases of so-called “old dislocations ;” these have not been separated, as they all occurred during the period under consideration, and none of them were of more than nine months’ standing, the great majority being much more recent.

Special Joints.

As the scope of this paper is not intended to extend beyond a consideration of the general incidence of dislocations, little will be said as to the separate joints, but it will perhaps help to elucidate the points already dealt with if a few particulars are added which have necessarily come up in the course of preparation of the numbers already dealt with.

Lower jaw.—As already mentioned, the comparative numbers of males (20) and females (22) are nearly equal in our series. Again, the proportionate incidence to total dislocations is very much larger than given in most other statistics, except in Morris's, where the percentage occurrence is one higher (thus 4.24 per cent. against 3.47 in our series). The dislocation stands sixth in order of absolute frequency. As to age, it may be remarked that the great majority of the patients were between twenty and forty years of age, thus 27 out of 41 in which the age is given. Above forty only 9 cases were met with. This is of interest as being opposed to the view that the liability to the occurrence of displacement is heightened by the change in outline connected with the edentulous jaw.

Clavicle and scapula.—The dislocations of the clavicle from the sternum and of the acromion from the clavicle have, unfortunately, been massed in the records kept, so that it is impossible to separate the sexes and ages of the patients for the two dislocations. The whole number, however, shows that displacements at either end of the clavicle conform to the usual rule as to sex, that is to say, they are about three times as frequent in men as in women. With regard to age, the decade in which most occur is from twenty to thirty.

Of the 50 dislocations 16 were of the clavicle from the sternum, while 26 were of the acromion from the clavicle. In 8 cases the end of the clavicle displaced is not mentioned.

Of the 7 dislocations of the sternal end in which the direction is given, this was upward in 6, backward in 1. The displacement of the acromion is stated to have been

upward in 15 instances, in the remainder no record was made.

Humerus.—As in all other statistics dislocations of the humerus at the shoulder account for approximately one half of the total number of the series, *i. e.* 44·65 per cent. As to age, one dislocation occurred below five years, none between five and ten, only 13 between ten and twenty, while above twenty there is a steady increase in frequency with each decade. The proportion of males to females is a little more than two to one, thus, 354 to 173. The dislocation occurred rather more frequently on the right than on the left side of the body, thus, 259 to 236; in 32 instances no record of this point was made.

The dislocations were classified by the different observers as follows:

Subcoracoid	.	.	421 or 82·38 per cent.
Subglenoid	.	.	78 or 15·26 „
Subclavicular	.	.	6 or 1·17 „
Subspinous	.	.	6 or 1·17 „

No instance of either *luxatio erecta* or *luxatio horizontalis* was met with. The large proportion of so-called subglenoid dislocations is, of course, open to criticism, but it is still of interest as pointing to the frequency of a somewhat low position of the head of the humerus, and tends to support the theory that a sub-glenoid position is often antecedent to the subcoracoid.

The total number includes 34 dislocations of some standing, and a note as to the treatment and results obtained in them will be of interest. (See Table VIII.)

The “old dislocations” were, for the most part, reduced by Kocher’s method, but in some by extension. In one case the shaft of the humerus was fractured during the manipulations, but the displacement at the shoulder was reduced; in a second the head was reduced, in spite of a fracture at the anatomical neck (?); and in a third, a boy of fourteen, in which an oblique fracture of the neck existed, the fracture was cut down on, the bone pegged, and the dislocation reduced, with an excellent result.

TABLE VIII.

Duration.	Total.	Reduced.	Unreduced.	Excised.	Reduction not attempted.
1 week	2	2	—	—	—
2 weeks	4	3	—	1	—
3 "	2	2	—	—	—
4 "	5	2	2	1	—
5 "	5	4	1	—	—
6 "	1	—	1	—	—
8 "	3	—	3	—	—
9 "	1	—	1	—	—
10 "	1	—	1	—	—
3 months	4	1	2	—	1
4 "	4	2	1	—	1
6 "	1	—	1	—	1
9 "	1	—	—	—	—
Totals	34	16	13	2	3

In two cases the head of the humerus was excised ; in one of these a poor result was obtained, mainly from the difficulty in carrying out passive movements in a nervous patient ; in the second, in which the great tuberosity was separated, a perfect result was obtained ; both the patients were females. In one case open reduction was followed by pyæmia and death.

In the three cases in which no attempt at reduction was made the patients were old and feeble, and fair movement existed.

Two cases of nerve complication are recorded ; in one the entire brachial plexus was paralysed ; in the second the paralysis was confined to the musculo-spiral and ulnar nerves ; in neither was any improvement effected.

Radius and ulna at elbow.—This dislocation stands second in order of frequency in our series, with a total number of 222, or 18·39 per cent. of the whole number. This is also the case in Krönlein's statistics, but in Morris's the thumb dislocations stand between those of the shoulder and elbow in frequency.

The accident occurred four times as frequently in males as in females, and of 202 cases in which the side of the

body is recorded, 77 were of the right side and 125 of the left.

The result shown by the age column thoroughly bears out the theory of Krönlein that the elbow suffers as a result of want of muscular capacity; thus, of the whole number, 161 occurred between the ages of five and twenty, while above the age of twenty only 50 occurred.

In 192 cases, in which the direction taken by the bones is given, we find the following result :

Backward	.	.	109 or 56·77 per cent.
Backward and outward	.	52 or 27	„
Backward and inward	.	6 or 3·12	„
Outward	.	18 or 9·37	„
Divergent	.	6 or 3·12	„
Forward	.	1 or 0·52	„

In six of the cases the dislocation was of some standing, three, five, seven, eight weeks, and four and five months respectively.

In none of these was reduction effected without operation. In one, a male of six, the olecranon was temporarily resected, and the ulna reduced after cutting off the coronoid process; in another of both bones outwards of four months' standing the joint was excised; in both good results were obtained.

Two compound dislocations were observed, both backward and outward, and both treated conservatively with good result. One occurred in a male aged forty, the second in a male aged forty-seven.

Co-existent fracture.—The presence of a fracture is noted in 30 cases, or 18 per cent. of the whole number. This fact is of special importance in this dislocation as supporting the theory that the presence of the numerous processes liable to fracture around the articulation favours the possibility of displacement, and an examination of the numbers given shows the majority of the fractures to have been of the “*par arrachement*” variety, thus :

Olecranon	.	1	Radius shaft	.	1
Internal condyle	.	18	Upper epiphysis	.	1
External condyle	.	3	Ulna shaft	.	1
Coronoid process	.	3	Radius and ulna shafts		3

Isolated dislocations of the radius.—Forty-nine instances of this dislocation are included; thus it comes fifth in the order of absolute frequency, forming 4 per cent. of the whole number. Examination of the questions of age and sex show that the injury almost exactly corresponds in these particulars with the complete dislocation of the elbow, except in the fact that a somewhat larger proportion occurred under the age of five years.

The position assumed by the head of the radius is, unfortunately, only definitely stated in twenty of the cases; it is probable, however, if the position had been recorded in all that an increase in the proportion of cases of forward displacement would have been the result. It is also probable that a number of cases of so-called "subluxation" were not included in the tables by the observers. The numbers given are as follows:

Backward	.	.	.	6, or 30 per cent.
Forward	.	.	.	11 „ 55 „
Outward	.	.	.	2 „ 10 „
Subluxation	.	.	.	1 „ 5 „

As in the case of the elbow dislocations a large proportion of co-existent fractures were observed, thus 9, or 18·36 per cent.

Internal condyle of humerus	.	.	.	4
External condyle of humerus	.	.	.	1
Olecranon	.	.	.	1
Shaft of ulna	.	.	.	2
Shafts of radius and ulna	.	.	.	2

Isolated dislocations of the ulna.—The remarks made as to age and sex for the last dislocation apply equally well here, but the number of dislocations is much smaller, thus 26, or 2·15 per cent. of the whole number. The dislocation stands seventh in order of absolute frequency.

In 24, or 88·23 per cent. the displacement was of the upper extremity, and this is stated to have been backward in 15, while in 9 the direction is not recorded. The entire number are, no doubt, to be properly regarded as incomplete dislocations of the elbow-joint.

Co-existent fracture is noted in 4 cases, or 15·38 per cent.; in 1 case the fracture was of the neck of the radius, in 3 of the internal condyle of the humerus.

In 2 cases the lower end of the ulna was displaced forward and outward at the wrist.

Dislocations of the wrist.—Displacement of the carpus from the bones of the forearm was observed thirteen times, or in 1·07 per cent. of the whole series. The dislocation thus comes ninth in order of absolute frequency. Eleven of the displacements occurred in males, 2 in females, and of 8 cases in which the point is noted 5 were of the left side. The occurrence of the dislocations is fairly evenly distributed over the decades from ten to sixty.

In 5 instances the direction is recorded to have been backward, in 1 the displacement was incomplete, and in 7 no information is given as to the position of the carpus.

As is the case with all dislocations of the hand bones the proportion of compound injuries is very large; thus 4 out of a total of 13, and 3 of these were complicated by injuries to the distal segments of the hand. This, of course, depends on the fact that the majority of these injuries were the result of considerable direct violence.

Dislocation of the digits of the hand.—Displacements of the fingers and thumb occurred 213 times, or in 17·99 per cent.; taken together dislocations of the digits come third in order of absolute frequency. The proportional frequency as to sex is about the normal of three to one; thus males 163, females 50. Ninety-five were of the right, 107 of the left hand. As to age, we find that the accidents were fairly evenly distributed over the years of active life, but are comparatively rare before the age of twenty.

The numbers as to age and sex are massed, but the following details are available for 191 of the cases.

Thumb:

Metacarpal bone	.	.	10, or 11·36 per cent.
First phalanx	.	.	47 „ 53·45 „
Second phalanx	.	.	31 „ 35·22 „

Total 88

Fingers :

Metacarpal bone	.	.	7, or 6·79 per cent.
First phalanx	.	.	30 „ 29·12 „
Second phalanx	.	.	35 „ 33·98 „
Third phalanx	.	.	31 „ 30·09 „

Total 103

Fourteen of the 88 dislocations of the thumb, or 15·9 per cent., and 14 of the dislocations of the fingers, or 12·38 per cent. were compound.

Dislocations of the femur at the hip-joint.—These were few in number, and the total is too small to allow of any important deductions being drawn from it. None the less the series offers some peculiarities, especially as to the age at which the dislocations occurred.

Fifteen instances were observed in all, or 1·25 per cent. of the total of 1207 ; the dislocation thus comes eighth in the order of absolute frequency, and the incidence amounts to three dislocations in every two years of the practice of the hospital.

As to the influence of sex the general average is maintained, 11 cases occurring in males, 4 in females. With regard to the side of the body, 7 were of the left, 5 of the right, and in 3 cases the side of the body was not recorded.

It is in the matter of age that the most striking result is observed ; thus no less than 8, more than half the total number, occurred under the age of twenty, and of the 8 7 were under ten years of age.

Under 5 years	...	3	...	2½, 3½, 5.
5—10 „	...	4	...	7, 7, 10.
10—20 „	...	1	...	16.
20—30 „	...	2	...	28, 29.
30—40 „	...	1	...	38.
40—50 „	...	3	...	42, 42, 43.
Above 60 „	...	1		
Total	.	.	15	

Although the number of cases is too small to allow of any definite general conclusion being drawn, yet the large proportion occurring in children in this series is, to say the

least, suggestive, and bearing in mind the immense strength of the adult hip-joint it is not unreasonable to assume that the older statistics in this matter are open to some revision, and that dislocations of the hip in the young are considerably more frequent than most authors allow to be the case.

The 15 dislocations are classified as follows: dorsal 11; thyroid 2; pubic 2: compound 1.

All the dislocations were reduced, except one dorsal of nine months' standing, and one of the pubic dislocations, which latter was complicated by numerous injuries leading to death. The above-mentioned was the only non-recent one of the series, but one other old everted dorsal dislocation, which was treated by excision, is not included, as it was of two years' standing, and some doubt appears to exist as to its purely traumatic character.

Dislocations of the bones of the leg at the knee-joint.—This accident occurred three times, or 24 per cent. of the whole number; the dislocation stands, together with those of astragalus and toes, thirteenth in order of absolute frequency. The displacement is said to have been outward in one case, outward and backward in one, and forward in the third.

Dislocation of the patella was seen four times, or 33 per cent. of the whole number, and stands twelfth in order of absolute frequency. Three of the dislocations were of the rotatory variety.

Dislocation of the fibula at the superior tibio-fibular joint occurred once, and was complicated by a severe contused lacerated wound; a good result was obtained.

Dislocations of the tarsus at the ankle.—This series is the most unsatisfactory of the whole, as some of the injuries might no doubt have been classified as Pott's fractures, while on the other hand a certain proportion of the Pott's fractures might have been included here. The table contains 10 cases, or 82 per cent. of the whole number, but no conclusion of any value can be drawn as to the comparative incidence of this dislocation, as there is little doubt that if pure ankle dislocations, apart from fracture, were taken, the proportion is far too large. Seven of our cases were males, three females, and of the 10 cases 7 occurred be-

tween the ages of twenty and forty, and 3 above forty. In 3 of the cases no fracture was discovered, and these should, perhaps, properly be considered the only fit ones for inclusion here. Of the remaining 7, 2 had typical Pott's fractures, 1 a Dupuytren's fracture, in 2 the tibia and fibula were fractured above the joint, in 1 the tibia alone was fractured, and 1 was complicated by a compound fracture of the tarsus. One of the dislocations was compound; in this the joint was excised, and the patient died of tetanus.

Subastragaloid dislocation of the foot.—This occurred in six instances, or 49 per cent. of the whole series. All the patients were males, all were above thirty years of age, and 3 occurred in the decade between thirty and forty. The dislocation stands eleventh in order of absolute frequency.

In 3 cases the foot was displaced inwards, in 1 outwards, and in 1 the direction is not stated. One was a compound dislocation in a man of fifty-seven; pyæmia followed conservative treatment, and he died after a secondary amputation performed ten days after the injury.

Isolated dislocations of the astragalus were met with three times, or in 24 per cent. of the entire series; they thus stand with dislocations of the knee and the toes thirteenth in order of absolute frequency.

Two of the patients were females, one a male, and all were between thirty and sixty years of age. In two the bone was displaced forwards and outwards, and in one of these there was a co-existent fracture of the neck of the bone. One was displaced forwards and inwards; in this case the bone was excised, and the patient died of septic infection.

Dislocations of the toes were only seen three times. In all the great toe was the digit affected, but in one case there were also dislocations of the second and third toes. One of the injuries was compound.

Fractures.

In the course of the ten years 1889—1898, 10,410 cases of fracture were treated at the hospital.

The following table (Table I) sets out the main facts in regard to these cases under each individual bone.

TABLE I.—*Showing the number, sex, side of body, age, individual*

Site of fracture.	Total number.	Sex.			Side of body.		
		M.	F.	Un-stated	R.	L.	Un-stated
Skull—Cranium	387	315	72	...	...	...	...
Face bones	260	200	60	...	72	84	104
Total fractures of skull	647	515	132	...	72	84	104
Trunk—Spine	47	42	5	...	...	...	...
Pelvis	62	51	1	...	...	...	...
Sternum	9	7	2	...	...	...	...
Ribs	1,102	811	291	...	284	336	482
Total fractures of trunk	1,220	911	309	...	284	336	482
Upper extremity—Clavicle	1,101	677	424	...	505	534	62
Scapula	56	46	10	...	30	18	8
Humerus	825	575	250	...	316	401	108
Radius	1,250	625	625	...	558	667	25
Ulna	305	226	79	...	122	136	47
Radius and ulna	653	502	151	...	266	275	112
Hand bones	701	573	128	...	356	261	84
Total fractures of upper extremity	4,891	3,224	1,667	...	2,153	2,292	446
Lower extremity—Femur	876	575	301	...	131	122	623
Patella	280	199	81	...	89	79	112
Tibia	479	372	107	...	197	194	88
Fibula	606	465	141	...	242	229	135
Tibia and fibula	1,223	893	330	...	373	384	466
Foot bones	188	170	18	...	67	75	46
Total fractures of lower extremity	3,652	2,674	978	...	1,099	1,083	1,470
Total fractures of—							
Skull	647	515	132	...	72	84	...
Trunk	1,220	911	309	...	284	336	482
Upper extremity	4,891	3,224	1,667	...	2,153	2,292	446
Lower extremity	3,652	2,674	978	...	1,099	1,083	1,470
Grand total	10,410	7,324	3,086	...	3,608	3,795	2,398

result, and percentage mortality of fractures of the bones.

Age.									Result.				Mortality per cent.
-5	-10	-20	-30	-40	-50	-60	+60	Un-stated	C.	R.	U.	D.	
55 5	49 8	48 32	58 73	65 74	49 42	37 14	25 11	1 1	237 256	12 ...	2 ...	136 4	35.14 1.54
60	57	80	131	139	91	51	36	2	493	12	2	140	21.8
...	...	4	9	11	13	8	2	...	10	12	4	21	44.68
2	6	7	9	8	13	6	11	...	39	2	...	21	34.43
...	...	...	1	2	2	3	1	...	8	...	...	1	11.11
7	24	40	101	244	289	241	138	18	1,073	...	...	29	2.63
9	30	51	120	265	317	258	152	18	1,130	14	4	72	5.9
368 10	206 1	130 6	121 14	96 7	66 8	46 4	46 5	27 1	1,100 56	...	...	1	0.09 0.0
152	190	161	50	55	60	66	68	23	807	10	1	7	0.85
216	125	213	90	133	124	174	119	16	1,249	...	...	1	0.08
40	31	54	51	54	26	22	20	7	303	2	...	...	0.0
146	204	183	12	25	19	21	15	28	649	4	...	...	0.0
21	33	135	184	163	85	52	19	9	699	1	...	1	0.14
948	790	882	522	533	388	385	292	111	4,863	17	1	10	0.204
219	185	93	44	44	58	65	160	8	763	65	2	46	5.25
...	...	9	57	88	70	38	18	...	250	24	5	1	0.36
59	114	103	48	53	58	24	20	...	472	4	...	3	0.65
11	23	58	119	176	122	58	24	15	605	...	...	1	0.16
31	99	99	172	269	283	162	100	48	1,177	10	2	34	2.78
6	8	41	49	41	23	13	6	3	187	...	...	1	0.53
326	429	403	489	671	614	360	328	74	3,454	103	9	86	2.35
60	57	80	131	139	91	51	36	2	493	12	2	140	21.8
9	30	51	120	265	317	258	152	18	1,130	14	4	72	5.9
948	790	882	522	533	388	385	292	111	4,863	17	1	10	0.204
326	429	403	489	671	614	360	328	74	3,454	103	9	86	2.35
1,343	1,306	1,416	1,262	1,608	1,410	1,054	808	205	9,940	146	16	308	2.959

It has been thought best to group the bones of the cranium, face, pelvis, hand, and foot together, and to treat the vertebræ and the ribs each as one bone.

The total number of cases of injury treated at the hospital during the same period was 119,404, of which 1207 were dislocations. We quote published statistics classifying the injuries treated at the London Hospital from 1842 to 1874, with which we contrast our figures.

TABLE II.—*Showing the proportion of fractures and dislocations to total number of injuries.*

Hospital.	Total injuries.	Fractures.	Per-centage.	Disloca-tions.	Per-cent-age.
London Hospital (1842—1874)	307,352	45,781	14·9	4 578	1·5
St. Thomas's Hospital (1889—1898)	119,404	10,410	8·72	1,207	1·01

It will be seen that the experience of the London Hospital gives a decidedly greater proportion of both fractures and dislocations than does our own. This is easily explained by the large amount of heavy manual and mechanical work done by the large riverside *clientèle* of the London Hospital. The proportion of dislocations to fractures in their series is almost exactly 1 to 10, in ours approximately 1 to 8½.

Frequency of incidence.—The frequency of incidence of fracture on the various regions of the body is worked out below, and is contrasted with two other sets of figures—a large series (before quoted) prepared at the London Hospital, and a second series given by Bruns from various sources and different localities, and in which any error due to local circumstances or occupations is more likely to be eliminated.

TABLE III.

Region of body.	St. Thomas's:		London Hospital.		Paul Bruns.	
	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.
Head . . .	647	6·21	1,521	3·86	544	6·3
Trunk . . .	1,220	11·72	7,127	17·66	1,045	12·0
Upper extremity .	4,891	46·02	21,198	52·60	4,311	50·3
Lower extremity .	3,652	34·12	10,431	25·88	2,660	31·0
Total . . .	10,410	...	40,277	...	8,560	...

The correspondence between these three sets of figures is fairly close, especially between our own and that of Bruns. The likeness would be even closer if the fractures of the scapula had been included with those of the trunk in our series. We have thought right to include them with those of the upper extremity ; in both the other series they go in with the trunk. Their number (56 in our series) makes no great difference, but would make our figures still more closely agree with those of Bruns.

The higher figure for the trunk in the London Hospital series is entirely due to a larger proportion of fractured ribs, and can perhaps be explained by the local conditions already alluded to.

With regard to the relative frequency of fractures of the upper and lower extremities, all the older statistics gave the majority to those of the lower. This was because sufficient care was not taken to obtain records of the out-patient cases. Wherever this has been done numbers point the other way.

The difference, however, entirely depends on the large number of fractured clavicles, to which there is absolutely nothing to correspond in the lower extremity, as the whole pelvis is included with the trunk. In our series, on omitting the fractured clavicles, the totals for the two extremities are nearly equal. We find, in fact, that the femur comes before the humerus in frequency, while both tibia and fibula directly follow the radius, and are in advance of the ulna.

Including the clavicle, fractures of the upper extremity

are more common than those of the lower in the proportion of about 4:3, 5:3, or, as in the London Hospital statistics, even 2:1. This is further confirmed by the statistics of Lonsdale and Morris, taken from the Middlesex Hospital, which give 1932 of the upper to 1206 of the lower extremity.

Our first table represents the number of *cases* of fracture, not the number of fractures; that is to say, each case is entered only under one bone or group of bones, and where multiple fractures have occurred the case is only mentioned once under the most important bone broken.

To obtain the true incidence of fracture on the various bones of the skeleton, these other fractures must be added in, and where both bones of the forearm and leg have been fractured, each bone must be credited with a break.

In Table IV this has been done, and the relative frequency with which the various bones are broken is shown.

In a parallel column is given the relative order of frequency as shown by Bruns' table of 8560 fractures, after it has been modified in the same way by splitting up the fractures of both bones of forearm and leg. The agreement in their main features is striking (see Table IV).

Influence of sex.—The sex is mentioned in every one of our cases, the numbers showing—

Males, 7324, or 70·355 per cent.

Females, 3086, or 29·645 per cent.

This gives the proportionate frequency of fractures in males to females as 2·87 to 1, a decidedly smaller preponderance of men than is usually stated to be the case, and showing almost exactly the same sex proportion as does our series of dislocations. Two explanations can be given of this. One is the decided majority of women over men alive in London—as shown elsewhere by the Registrar-General's returns—especially in the later decades of life, when fractures of the lower end of the radius and of the neck of the femur so frequently occur in women. The other is the large number of factories in our district south of the Thames in which young women are employed.

The only other London statistics available give an even smaller disproportion between the sexes. These are Morris's

TABLE IV.—*Showing the number of times each bone was broken, with the percentage incidence of fracture.*

Bone.	Number of times broken.	Percentage incidence of fracture.	Relative order of frequency.	
			Makins and Abbott.	Bruns.
Radius ¹	1,920	15·35	1	1
Fibula ²	1,857	14·84	2	2
Tibia ²	1,728	13·81	3	3
Ribs	1,150	9·19	4	8
Clavicle	1,115	8·91	5	6
Ulna ¹	973	7·77	6	5
Femur	902	7·21	7	4
Humerus	835	6·67	8	7
Hand bones	706	5·64	9	9
Cranium	388	3·10	10	10
Patella	286	2·29	11	11
Foot bones	193	1·54	12	12
Inferior maxilla	136	1·09	13	13
Nasal bones	97	·77	14	15
Pelvis	67	·536	15	16
Scapula	56	·45	16	14
Spine	49	·39	17	18
Superior maxilla	21	·17	18	17
Sternum	15	·12	19	19
Zygomatic arch	8	·07	20	...
Malar	7	·06	21	...
Lachrymal	1	·01	22	...
Grand total	12,510	...	...	...

figures from the Middlesex Hospital, which show a ratio of 10 to 7·4.

In eight foreign tables the proportion varies from 2·2 : 1 to 4 : 1, while in one table it is given as high as 8 : 1.

The disproportion in our series decreases from that in fractures of the head (4 : 1), through fractures of the trunk (3 : 1) and those of the lower extremity (2·75 : 1), to fractures of the upper extremity, where it is slightly less than 2 : 1. Here the incidence is equalised by the clavicle fractures, so large a proportion of which occur in infancy, and those of the radius—where the numbers are exactly equal—of which so many occur in women in the later decades of life.

¹ 661 of these were of both forearm bones.

² 1243 of these were of both leg bones.

The disproportion is also small in the case of the femur, and in fact Table I shows clearly that it is least in those bones liable to fracture in infancy or old age, and greatest in those whose accidents occur during the working years of life. The difference due to sex is really, as we should expect, one due to occupation and habits.

The method of tabulation employed at St. Thomas's does not allow of any comparison of sex according to age, but Morris's figures throw useful light on this subject. The following table, compiled by Bruns from statistics by Gurlt, Weber, and Drozyuski, plainly shows the incidence on sex according to age.

TABLE V.—*Showing frequency of fracture in males and females in successive decades of life.*

Age.	Males.	Females.	Proportion.
			Males : Females.
—10	375	175	2·1 : 1
—20	487	86	5·6 : 1
—30	601	88	6·8 : 1
—40	561	46	12 : 1
—50	435	66	6 : 1
—60	322	117	2·7 : 1
—70	140	88	1·5 : 1
—80	43	86	1 : 2
—90	6	20	1 : 3·3
Total	2970	772	3·8 : 1

Influence of side of body.—The side of the body on which the fracture occurred is stated in 7403 cases.

Of these there were—

Right, 3608 or 48·74 per cent.

Left, 3795 or 51·26 per cent.

This relative proportion of left to right is almost exactly the same as in the dislocations in our series, where the same slight majority of left-sided lesions shows itself.

With the exception of the scapula this slight preponderance of left over right holds good throughout the upper extremity as far as the wrist, sufficiently explained by the natural

tendency of most to keep the left side in advance, and best exemplified by the radius, where Colles' fractures due to falls on the outstretched left hand cause a left majority of over a hundred. Fractures of the hand are much more common on the right side, these being generally due to direct violence, and most men right-handed.

In the leg a slight majority are on the right side until we come to the ankle and foot, when the reverse is the case, but the differences are trivial and unimportant.

Bruns comes to the same conclusion, such slight differences as there are in his figures being in favour of the left side; viz. right 1073, left 1118.

Influence of age.—Almost the same number of fractures occur in each of the first two five-year periods of life as in each of the succeeding decades. The numbers in each decade then remain so approximately uniform up to the age of sixty as clearly to show a steady rise in the fracture rate, since the number of persons living decreases rapidly in each succeeding decade.

This is brought out clearly in the table (Table VI), in which the population of London alive in each decade is shown in one column, and the proportionate frequency of fractures corrected according to population living is placed in the next one.

Similar statistics by Bruns, worked out from a much smaller total number of cases, are inserted for comparison. The age is stated in 10,205 of our cases, and it is from this number that our data are drawn.

It will be seen that if we take into consideration the number of persons living in each decade, fractures, frequent in the first ten years of life, become less common up to thirty.

In the decade from 20—30, the most active period of life, their frequency in proportion to population is at its lowest.

The frequency then steadily increases till it reaches its maximum in the decade 60—70.

There is one striking difference between Bruns' figures and our own, viz. that he shows scarcely a greater proportion of fractures for the whole first decade than our

TABLE VI.—*Showing number of fractures at different ages, their proportionate frequency, and their proportionate frequency according to population living.*

Makins and Abbott.					Bruns.	
Age.	Number of fractures.	Proportion of total number.	Population living in London.	Proportionate index frequency of fractures to population.	Total proportionate frequency of fractures.	Proportionate frequency of fractures to population in percentages.
Under 5 years	1343	13·16	501,622	1·73	—	—
5—10 „	1306	12·89	454,160	1·91	13·9	5·9
10—20 „	1416	13·88	833,245	1·1	15·4	8·1
20—30 „	1262	12·37	817,222	1	18·4	12·1
30—40 „	1608	15·76	609,233	1·7	16·3	15·4
40—50 „	1410	13·82	440,039	2·05	13·3	13·5
50—60 „	1054	10·33	286,314	2·4	12·0	14·9
Above 60 „	808	7·92	269,808	1·94	10·1	{ 12·3 (60—70) 17·5 (70—90)

figures show in each of the first two periods of five years. This perhaps is due to the neglected condition and independent life led by the youngsters of our London working population.

Space does not allow of our demonstrating the great difference in the age incidence of fractures of the different bones, but the facts can easily be obtained from Table I.

Briefly, the clavicle, humerus, radius, ulna, femur, and tibia are the bones most frequently broken in childhood and adolescence; the skull, ribs, hand and foot bones, fibula, and tibia with fibula, in the working period of life; while the ribs, radius (from Colles' fracture), and femur (from fractures of the neck) present the largest figures in late life.

Mortality.—Lastly, Table I. shows the mortality due to these several injuries. Fractures of the spine show the highest figure, approaching half the total number, while death occurs in more than a third of the fractures of the cranium and pelvis. Of the limb bones the femur shows by far the highest mortality, the only other mortality of any magnitude being in fractures of both bones of the leg.

The mortality in the case of all the arm bones is strikingly low, even the humerus showing one of less than 1 per cent.

SPECIAL FRACTURES.

At this point the task we had set ourselves is really complete, but many other details have presented themselves in the course of the preparation of these figures. Owing to different methods of recording the cases, some of these points can only be worked out for certain years and for limited numbers. Where, however, they seem likely to be of use to others these extra details are briefly recorded below.

Head.

Fractures of the cranium.—226 of these were fractures of the base, the vault being involved in addition in 51; the remaining 161 were of the vault, and of these 116 were compound. Depression is noted in 19 simple cases and 60 compound.

The total mortality of fractured base is 89 in 226 (39·4 per cent.), but 45 of these deaths occurred among the 51 cases in which the vault was also injured, and belong to the class of hopeless smashes of skull.

Without this group the mortality of fractured base is only just over 25 per cent., and is distinctly encouraging.

Fractures of the face.—The inferior maxilla is responsible for 133 out of 260 fractures of face bones, or just over a half. The position of the fracture is noted in 62: horizontal ramus, 46; vertical ramus, 6; angle, 10. Ten are mentioned as comminuted.

The fracture is most frequent from twenty to fifty, and occurs more than four times as often in males as females.

Trunk.

Fracture of the spine.—Out of 47 cases, only 5 occurred in women, and none in the first decade of life. It is essentially a fracture of working life.

The position is stated in all but one. Of these were—

Cervical	23
Cervico-dorsal	1
Dorsal	15
Dorsi-lumbar	6
Lumbar	1

Four were noted as “fracture dislocations.”

Fracture of ribs.—We have endeavoured to work out the incidence of fracture on the different ribs.

The figures at disposal show the following fractures :

Rib	1	2	3	4	5	6	7	8	9	10	11	12
No. of times fractured }	3	11	16	17	35	54	97	118	100	85	32	12

Thus the numbers rise steadily from the first to the eighth, and fall equally regularly to the last. Sixty-eight others were noted as multiple, but no details given.

The Upper Extremity.

Fracture of the clavicle.—In some years the position is stated, altogether in 476 cases. It shows as follows :

Sternal end	7
Inner third	32
Middle third	105
Outer third	280
Acromial end	52

Fracture of the scapula.—The position is stated in all but 12, and shows—

Acromion	15
Spine	12
Coracoid	3
Neck	2
Ala	12

Fracture of the humerus.—In 641 cases where the position is defined, there were of the—

Upper third	212
Middle third	100
Lower third	270

Of 75 separations of epiphysis (included in above), 17 were of the upper and 59 of the lower epiphysis.

The following figures, taken from certain years in which the age is stated under each division of the bone, though comparatively small, show so clearly that fractures of the neck occur late in life, while those of the lower extremity occur nearly always under twenty, that they are given *in extenso*.

	T.	M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Un-stated
Neck of humerus	75	39	36	1	5	6	5	7	13	18	16	4
Lower extremity.	157	115	42	24	65	53	2	6	3	2	1	1

Fractures of the anatomical neck, treated as out-patients, though stated to have occurred, are not sufficiently authenticated to serve any useful purpose here.

Of the whole number of 825 fractures of humerus, 47 are noted as compound. This number is probably correct, as all such would be admitted to the wards and the point properly noted.

Fractures of forearm.—The position of the fracture in those cases in which it is recorded is as follows:

	Upper third.	Middle third.	Lower third.
Radius	133	115	794
Ulna	39 ¹	49	42
Radius and ulna	34	149	124

Of 633 fractures of lower third of radius in which the age can be worked out, 551 are definitely noted as "Colles' fracture." The set of figures below are therefore given as practically applying to Colles' fracture.

Bone.	Total.	Sex.		Side.		Age.								
		M.	F.	R.	L.	-5	-10	-20	-30	-40	-50	-60	+60	Un- stated
Lower third of radius ("Colles " 551)	633	227	406	264	365	15	14	90	39	79	96	148	101	11

¹ Excluding olecranon.

Incidence and Distribution of

The great preponderance of females over males, of left over right side of body, and the enormous proportionate incidence in the later years of life, are striking.

There are 117 fractures of olecranon out of a total of 305 of the ulna. There are nearly twice as many on the left as on the right side; they occur in the middle decades, and 12 of them are noted as compound.

Of 653 fractures of radius and ulna, 220 are stated to have been "greenstick."

There is only one case of fracture of a carpal bone in our series, and that a trapezium in a man between forty and fifty.

Of the metacarpals the first is most frequently broken, but there is no great difference in this respect between them.

The Lower Extremity.

Fractures of the femur.—In 146 fractures of the neck of the thigh-bone there is a majority of 20 females; 95 of these fractures, or nearly two thirds of the total number, occurred in people over sixty years of age. Seven only were under twenty, and of these three are noted as "separation of epiphysis." The diagnosis of this condition, however, is so doubtful, that they can hardly be accepted without further confirmatory evidence. Of 696 simple fractures of the remainder of the bone, the great majority occur before the twentieth year.

The position is definitely stated in 555 of them to have been as under :

Upper third.—Middle third.—Lower third.

131—32—241—19—132

There are 34 compound fractures of femur with 20 deaths; 15 of these were comminuted, and account for 12 of the deaths. Below the fractures of the neck are contrasted with the simple fractures of remainder of the bone.

	T.	M.	F.	-5	-10	-20	-30	-40	-50	-60	+60	Un- stated
Neck of femur . . .	146	63	83	1	1	5	5	6	13	20	95	...
Simple fractures of shaft and lower extremity	696	485	211	218	180	86	34	37	39	36	58	8

Fractures of leg bones.—The position of the fracture in those cases in which it is stated is as follows :

	Upper third.	Middle third.	Lower third.
Tibia	40	91	257
Fibula	22	20	461
Tibia and fibula . . .	61	129	773

Of fractures of tibia only 20 out of 479 were compound, and of the fractures of both bones 201 out of 1223 were compound. These 201 cases show 27 deaths, 14 of which were in cases noted as “comminuted” in addition.

Fractures of the patella.—As treatment is altogether beyond the scope of this paper, we have little to add about this bone. Of the 280 cases 2 only are noted to have been compound. Only one death occurred in the whole series.

Fractures of foot bones.—The total is made up of—

Tarsus	9 (5 compound).
Metatarsus	70 (8 „).
Phalanges	92 (10 „).
Unstated	17 (14 „).

As we should expect, both the metatarsal bone and phalanges of the great toe are broken more often than those of other digits.

St. Thomas's Hospital MEDICAL SCHOOL.



CALENDAR AND PROSPECTUS

FOR THE
YEAR COMMENCING OCTOBER 1ST, 1899.



1899 & 1900.

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THE ST. THOMAS'S HOSPITAL AMALGAMATED CLUBS.

The several Students' Clubs were amalgamated in July, 1888, and are maintained by the subscriptions of the Members, and by a yearly grant from the Medical and Surgical Officers and Lecturers.

The Amalgamated Clubs comprise the Students' Club, the Medical and Physical Society, the St. Thomas's Hospital Gazette, and the following Clubs :—Athletic, Chess, Cricket, Cross Country, Football (Rugby and Association), Lawn Tennis, Rifle, Rowing, and Swimming.

All Students are strongly advised to join the Amalgamated Clubs when they enter the Medical School. They are then able to spend the whole day at the School, all meals being obtainable at a moderate tariff, and they are further provided with facilities for exercise and recreation.

New Club premises adjoining the Medical School were opened in June, 1894. They contain a Dining Room (51 ft. × 39 ft.) and a Smoking and Reading Room (distinct from the School Library), 51 ft. × 29 ft., supplied with Daily and Illustrated Weekly Papers, and a Gymnasium. A Cloak Room with Lockers, and a Lavatory with Bath Rooms, are in the main School-building.

A ground of more than nine acres in extent has been acquired for the Amalgamated Clubs. It is situated at Chiswick, and can be reached in 40 minutes from the Hospital, the fare being 7d. for a return ticket. It is admirably adapted for Football, Cricket, Lawn Tennis, and Athletic Sports. It is provided with a Pavilion where Refreshments can be obtained, and all Members have the use of it subject to the Rules of the various Clubs.

The Annual Subscription to the Amalgamated Clubs is Two Guineas. After the payment of five consecutive subscriptions the Student becomes a Life Member.

Life Membership may be compounded for in the first year by payment of Seven Guineas; in other years, by payment of Six Guineas.

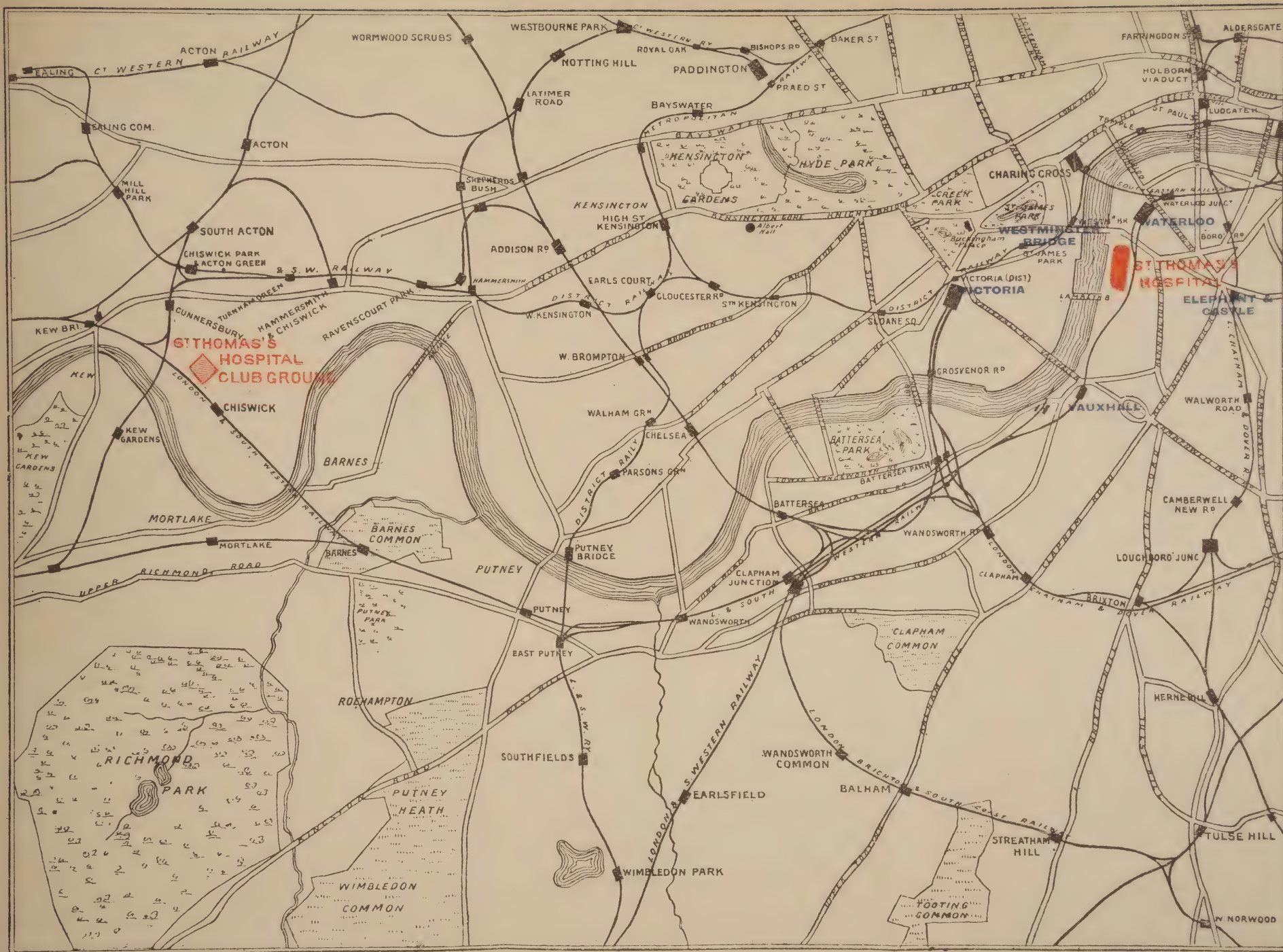
Subscriptions or Composition Fees may be paid to the Medical Secretary, Mr. G. RENDLE, or the Librarian, Mr. G. S. SAUNDERS.

MEDICAL SCHOOL.

A Register of LODGINGS suitable for Students has been recently revised, and is kept in the Secretary's Office. Information as to terms, accommodation, &c., can be obtained on application. This Register has been especially prepared with a view to the convenience of new Students for whose accommodation in lodgings or otherwise no definite arrangements have been made.

Medical Practitioners, Clergymen, and Private Families residing in the neighbourhood receive Students for residence and supervision.

For information on all matters relating to the Medical School, Prizes, Scholarships, &c., application should be made to the Medical Secretary, Mr. G. RENDLE, at the Hospital, Albert Embankment, S.E., personally (10 to 4, Saturday, 10 to 1) or by letter.



St. Thomas's Hospital

MEDICAL SCHOOL.

The WINTER SESSION 1899-1900 will commence on October 3rd, and terminate on March 31st.

The SUMMER SESSION will begin on May 1st, and terminate on July 31st.

The Prizes will be distributed by T. Clifford Allbutt, M.A., M.D., F.R.S., Regius Professor of Medicine, University of Cambridge, in the Governors' Hall, on TUESDAY, October 3rd, at 3 P.M. During the afternoon the various Departments of the Hospital and School will be open for the inspection of Visitors.

Refreshments will be provided in the Student's Club.

The Annual Dinner, in which all former and present Students are invited to join, will take place the same evening at the Whitehall Rooms, Hotel Métropole, at 6 for 6.30 o'clock, Dr. S. J. Sharkey in the Chair

THE first Hospital of St. Thomas, within the precinct of the Priory of St. Mary Overie, being destroyed by fire in the year 1207, the prior and convent erected in the same year near the site of their house a temporary hospital. This building was in the emergency used for religious purposes; mass was said there until the priory was rebuilt. In 1228 Peter de Rupibus, Bishop of Winchester, built the Hospital of St. Mary or St. Thomas, Overie, on the opposite or eastern side of the highway, on land provided by Amicius, Archdeacon of Surrey, and dedicated it to St. Thomas the Martyr.

The following is a translation of the "charter" of 1228:—

"The Lord Peter's charter of indulgence for twenty days granted by him for this hospital.

"Peter, by the grace of God Bishop of Winchester, to all the faithful in Christ in the diocese of Winchester, greeting. In Him who is the salvation of the faithful. As saith the Apostle, bodily discipline which consists in fasts, vigils, and other mortifications of the flesh, profiteth little, while piety availeth for all things, having the promise of the life which now is, and of that which is to come.

"Our Lord Jesus Christ among the works of piety enumerates, commends, and teaches us to fulfil six, as though more praiseworthy and more meritorious than the rest, saying, 'I was an hungred, and ye gave Me to eat; I was thirsty, and ye gave Me to drink; I was a stranger, and ye took Me in; I was naked, and ye clothed Me; I was sick, and ye visited Me; in prison, and ye came to Me.' To them that perform these works of piety He shall grant His blessing and the glory of His heavenly kingdom, saying, 'Come, ye blessed of My Father, receive the kingdom which has been prepared for you from the beginning of the world.' But to them that neglect and do not perform works of compassion He threatens His curse and the penalty of eternal fire, saying, 'Go, ye cursed, into eternal fire, which has been prepared for the devil and his angels.' It is therefore to be

borne in mind, my dearest sons, and more deeply laid to heart, how needful and how conducive to the salvation of our souls it is to exercise more readily those works of piety whereby blessing is promised to us, and the felicity of eternal life is gained.

"Behold at Southwark an ancient hospital, built of old, to entertain the poor, has been entirely reduced to cinders and ashes by a lamentable fire. Moreover, the place wherein the old hospital had been founded was less suitable, less appropriate for entertainment and habitation, both by reason of the straitness of the place, and by reason of the lack of water and of many other conveniences : according to the advice of us, and of wise men, it is transferred and transplanted to another more commodious site, where the air is more pure and calm, and the supply of water more plentiful. But whereas this building of the new hospital calls for many and manifold outlays, and cannot be crowned with its due consummation without the aid of the faithful, we request, advise, and earnestly exhort you all, and with a view to the remission of your sins enjoin you, according to your abilities, from the goods bestowed on you by God, to stretch forth the hand of pity to the building of this new hospital, and out of your feelings of charity to receive the messengers of the same hospital coming to you for the needs of the poor to be therein entertained, that for these and other works of piety you shall do, you may, after the course of this life, reap the reward of eternal felicity from Him who is the Recompenser of all good deeds, and the loving and compassionate God. Now we, by the mercy of God, and trusting in the merits of the glorious Virgin Mary, and the Apostles Peter and Paul, and St. Thomas the Martyr, and St. Swithin, to all the believers in Christ, who shall look with the eye of piety on the gifts of their alms—that is to say, having confessed, contrite in heart and truly penitent, we remit to such twenty days of the penance enjoined on them, and grant it to them to share in the prayers and benefactions made in the church of Winchester, and other churches erected by the grace of the Lord in the diocese of Winchester. Ever in the Lord ; Farewell."

The Bishop of Winchester or the Archbishop seems to have granted, in 1277, to the Brethren power to elect their own Master ; in a visitation, 1323, they are ordered to follow the rule of St. Augustine—the rule of the parent house—in obedience, chastity, renunciation of individual property, and the Master to eat with the Brethren.

In 1417 the Master and Brethren formed a Court of themselves, and exercised authority within the precincts of the Hospital over persons regular or secular, and in cases civil or even criminal.

The hospital, built in 1228, had by 1507 become dilapidated and insufficient ; great efforts were then made to rebuild and enlarge it.

In the Duchy of Lancaster records there is "the Rentall of Thomas Becketts hospitall in Southwarke, of all the lands and tenements belonging to the hospitall." It contains the names of the tenants and the rents paid ; it is without date, but from internal evidence must be early in the sixteenth century.

Within the precincts of the hospital was the renowned printing press of James Nycolson, who, in 1527, signed the contract for the painted windows of King's College, Cambridge, as "James Nycolson, of St. Thomas's Spyttell in Southwark." The most remarkable issue from this press was the first English Bible printed in England, inscribed thus—"Imprynted in Southwarke in St. Thomas Hospitale by James Nycolson. Dedicated by M. Coverdale to the King 1537."

About this time there were a Master, Brethren, and three Lay Sisters ; forty beds were made up for poor, infirm and impotent people, who were supplied with victuals and firing.

In the year 1535, Henry VIII. was excommunicated by Pope Paul III., and, declaring himself head of the church, proceeded to dissolve the Catholic

houses, whose large revenues went to the Crown. There seem to have been 645 monasteries and abbeys thus treated, twenty-eight of which had abbots with seats in Parliament, ninety colleges and free chapels, and 110 hospitals of various descriptions. It is certainly in favour of the sweeping change that so able and honest a man as Sir Richard Gresham, the Lord Mayor of London, should have put his hand to the following petition to the King :

"Most redowted, puyasant, and noble Prince * * *—here and within the cytie of London be iij hospitalls or spytells commonly called Seynt Georges Spytell, Seynt Barthilmews Spytell, and Seynt Thomas Spytell, and the new Abbey of Tower Hill, founded of good devotion by auncient fathers and endowed with great possessions and rents only for the reliefe, comforte, and helping of the poore and impotent people lying in every street, offending every clene person passing by the way with theyre fylthy and nasty savors. Wherefore may it please your merciful goodness, enclined to pytie and compassion, for the reliefe of Xts very images, created to his own similitude, to order by your high authoritie, as supreme head of this Church of England, or otherwise by your sage discretion, that your mayer of your cytie of London, and his brethren the aldermen for the time being, shall and may from henceforth have the order, disposition, rule and governaunce both of all the lands, tenements, and revenues apperteynyng and belongyn to the said hospitals, governors of them, and of the ministers which be or shall be withyn any of them, and then your grace shall facillie perceyve that where now a small number of Chanons, Priests, and Monkes be founde for theyr own profit only, and not for the common utilitie of the realme, a great number of poore, needy, syke and indugent persones shall be refreshed, maynteyned, and comforted : and also healed and cured of their infermities frankly and freely by physicions, surgeons and potycaries, which shall have stipende and salarie only for that purpose ; so that all impotent persones not able to labour shall be releved, and all sturdy beggars not willing to labour shall be punished."

St. Thomas's Hospital being claimed by the King as Church property, was surrendered to him by Thomas Thirleby, the then master, on the 15th July, 1538. It was called St. Thomas à Becket's Spittil. Its yearly revenue was estimated at £266 17s. 6d., and an annual pension of 5s. 8d. was payable by the master, and another of 2s. 1d. by the curate, to the Archdeacon of Surrey. Soon after the seizure, we find that the citizens of London purchased of the Crown some of its landed estates, producing about £160 yearly. The want of the hospital thus destroyed was felt immediately. Wounded soldiers from the army in France, and the sick poor in general were without provision or help, and Henry proposed granting to the city the Mansion house of St. Bartholomew's, the dissolved house of Grey Friars adjoining, and the unoccupied fabric of St. Thomas's Hospital. The latter was intended by Henry to receive the name of the Hospital of the Holy Trinity, and to be allotted exclusively to lame, wounded, and diseased soldiers. The monastery of Grey Friars was to be for the education and maintenance of fatherless children and those of poor parents. The intentions of Henry were overtaken by death, but not before he had conferred upon the citizens of London the Hospital of St. Bartholomew's and also that of Bethlem for lunatics.

It is from the death of Henry that the connection of St. Thomas's Hospital with the City of London appears to begin. To meet the needs of the sick and destitute who had before depended on the charity of the religious houses, a Committee or Board of Inquiry was instituted by the citizens, with the sanction of King Edward. About 2,100 souls were reported as fit recipients of relief, as fatherless children and invalids, or as "Idle rogues of both sexes who were levying contributions on public sympathy by feigned tales of sorrow." It was proposed to establish receptacles for each class in the unoccupied monastic buildings, and a pecuniary contribution was set on foot to complete the work. They bought the dissolved house of the Franciscans or

Grey Friars near St. Bartholomew's Hospital, and also by charter from the King received a grant as follows: "That the said mayor, commonalty, and citizens, and their successors, may have and enjoy all the franchises, immunities, and privileges whatever, which any Archbishop of Canterbury, and which the said Charles late Duke of Suffolk, or any master, brethren, or sisters of the late Hospital of St. Thomas in Southwark aforesaid; or any Abbot of the said monastery of St. Saviour, Saint Mary Bermondsey, next Southwark aforesaid, or any prior and convent of the priory of St. Mary Overie, ever had or enjoyed, or which we hold or enjoy, or our most dear father Henry the VIIIth, late King of England, or had enjoyed, or ought to have, hold, and enjoy the same: and that none of our heirs or successors may intermeddle with this our grant."

The Grey Friars became Christ's Hospital, and the Southwark site the Hospital of the Holy Trinity or St. Thomas's. The Lord Mayor and certain citizens then met on the 6th of October, 1552, and constituted themselves by royal permission governors of the Hospitals, and almoners of the money collected. The Hospital of the Holy Trinity they named in compliment to Edward, the "King's Hospital," and ordained it to receive 260 "wounded soldiers, blind, maimed, sick, and helpless objects."

They also directed that 380 children should be received into Christ's Hospital.

To complete the scheme, the old palace of Bridewell, in Blackfriars, where the Emperor Charles V. had lodged in 1522, when on a visit to Henry VIII., and where subsequently Wolsey had lived, was granted to the City by Edward as a house of correction for dissolute persons and idle apprentices, and for the temporary maintenance of distressed vagrants.

Lastly, the lands lately belonging to the Palace of the Savoy were conferred jointly on the three foundations; and a month only before the end of Edward's short reign, he incorporated by a second charter bearing date the 6th of June, 1553, the Lord Mayor and commonalty of the City of London in succession as perpetual governors of Saint Bartholomew's, Christ's, Bridewell, and the King's Hospital (which last received the name of ST. THOMAS THE APOSTLE), and secured to them the possession of all the estates and revenues appertaining to them by previous deeds of gift. So were the royal hospitals founded.

In 1557 the laws were framed and printed under the name of "The Order of the Hospitalls of K. Henry the VIII. and K. Edward the VI., viz., St. Bartholomew's, Christ's, Bridewell, St. Thomas's. By the Maior, Cominaltie, and Citizens of London," &c.

Successive bequests and donations continued to augment the property of the charities, but during the reigns of Elizabeth, James I., Charles I., and the Protectorate, there appear few facts to note. In the abstract of the charter of confirmation granted to the City in 1663 by Charles II. on his restoration, we find the charter of Edward acknowledged and confirmed. The Great Fire of London in 1666 injured St. Thomas's in its revenues only; and a fire in Southwark anno 1676 ceased, "as if by divine interposition," at the hospital, probably a strong and isolated block of building. Shortly after this, however, it was found necessary to rebuild the fabric, and in 1693 subscriptions were opened for this purpose. A long list of benefactions in this and the succeeding year, amounting in all to £37,769 3s., is given by Golding, who especially singles out Sir Robert Clayton for eulogium. The statue then erected to him, and still extant, was originally dated 1701, but this was altered on his death to 1714. He was the founder of the old square in which it stood, replacing what Golding terms "a low swampy structure of the monastic order." In

1707, Mr. Guy, founder of the neighbouring hospital, erected three wards at his own charge. In 1717, the back block of buildings adjoining Guy's Hospital was added. With the exception of the two large blocks forming the Borough frontage, the north wing erected in 1833, and the south wing in 1839, the fabric seems to have remained unchanged until its purchase by the railway. In the centre of the front quadrangle stood the brass statue of King Edward, by Scheemakers, erected first in 1737, in pursuance of the will of Charles Joye, some time treasurer of the hospital. It now stands in the grounds of the New Hospital.

It is a matter of more difficulty to trace the early history of the medical school in connection with the hospital. For the facts which follow we are indebted to the late R. G. Whitfield, Esq., who, from the long period during which his family had been associated with this foundation, was perhaps more qualified to speak than any other person.

The earliest mention in the hospital books of an apprentice is on December 31st, 1561. It is not until 1702 that a law is met with precluding pupils or surgeons from dissecting the dead body without permission from the treasurer.

In 1703 the grand committee resolved that no surgeon should have more than three "Cubbs," a term altered in 1758 to that of "Dressers." Besides these there were also apprentices to the surgeons of the hospital, and ordinary pupils. The first mention of lectures occurs soon after the appointment of Wm. Cheselden, in 1718. These he at first gave at his own house, but afterwards by permission in the hospital. They were on anatomy and surgery. In 1723 a regular registry was ordered to be kept by the apothecary, of pupils entering to surgical practice. In 1725, Guy's Hospital was opened for the reception of patients. In 1751 the assistant-physician was allowed to take two pupils for his own benefit. In 1768 an additional surgeon, Mr. Joseph Else, was elected to read lectures to the pupils.

The students of Guy's Hospital had by courtesy been allowed to attend the operations, and a similar favour admitted the St. Thomas's men to those at Guy's. But on the 8th November, 1768, it was formally resolved that the pupils of each hospital have the liberty of attending not only the operations, but surgical practice, and the money to be divided between the six surgeons and two apothecaries. Hence the appellation of the "United Hospital"; an amalgamation never extended beyond the surgical practice.

To Mr. Else is due the foundation of a regular anatomical school. Mr. Cline, who in 1781 was appointed to read lectures conjointly with Mr. Else, was mainly instrumental in bringing it to its greatest celebrity. At Mr. Else's death, Mr. Cline purchased the collection of preparations made by him and Mr. Girle, a former surgeon, which are now in the hospital museum, and became sole lecturer on anatomy. In 1788 he also became surgeon to the hospital. Mr., afterwards Sir Astley, Cooper was apprenticed to Mr. Cline in 1784, and before his election, as one of the surgeons to Guy's Hospital in 1800, was joint lecturer with his teacher on anatomy and surgery. They both added materially to the pathological museum.

In 1812 Mr. Henry Cline was elected surgeon to St. Thomas's Hospital on his father's resignation, and carried on the anatomical lectures conjointly with Astley Cooper. In 1813 a new anatomical theatre and museum were built, the hospital giving £3,000 for the purpose, and the two lecturers £1,000 each. In 1815 Mr. Benj. Travers, an apprentice of Astley Cooper's at Guy's, was elected surgeon, according to the established rule which gave the vacancy to the senior apprentice of either institution. Mr. Travers joined in the lectures, devoting his attention specially to ophthalmic surgery. In 1820 Mr. Joseph Henry Green was elected surgeon, on the death of his cousin, Mr. Hy. Cline, having been apprenticed to his uncle, Mr. Cline, in

the year 1809. From 1820 to 1825 he lectured with Astley Cooper. At this period all the branches of medical study,—viz., medicine, chemistry, materia medica, midwifery, botany and physiology—were lectured on at Guy's Hospital, and no physician of St. Thomas's was allowed to share them.

In 1824 Sir A. Cooper resigned the surgical chair, and Mr. C. Aston Key his apprentice and nephew by marriage, joined Mr. Green in the office. Mr. Frederick Tyrrell, standing in exactly the same relation to Cooper, received permission to lecture on diseases of the eye. In the following year Cooper showed signs of cerebral disturbance, and the family desired that his nephew, Mr. Bransby Cooper, should be his successor. But the claims of Mr. John Flint South were considered superior, and he was appointed. From this cause the "United Hospitals" were severed, and a complete school set up in both. The majority of the students clung to Guy's where the prestige of the great Sir Astley was still strong; and St. Thomas's school began to sink. The establishment of the Aldersgate Street private school under Tyrrell and Lawrence materially aided in this declension, as did also the secession of Dr. Elliotson to the newly-established University College, and the foundation of a fresh school at King's College, where for a time the surgical lectures were given by Mr. Joseph Henry Green, although a surgeon of St. Thomas's.

Owing to the unprosperous state of affairs in 1842, the Governors came forward to reorganize the school, and the aid of Mr. R. D. Grainger, whose popularity had been established in the Webb Street private school, was obtained. Mr. Joseph H. Green also rejoined the school; and Dr. Marshall Hall, Dr. Hodgkin, Dr. Martin Barry, Dr. Gregory, and Mr. Benjamin Travers contributed to its efficiency. In 1847 the Governors added to the School a lectureship on general pathology in connection with the hospital practice, and appointed to that lectureship and the associated clinical duties Mr. John Simon, whom afterwards (1853) they made one of the surgeons. In 1855 they added a lectureship on public health, and appointed to it Dr. Headlam Greenhow, who afterwards became physician to the Middlesex Hospital. This state of affairs continued until 1858, when the Governors gave back the management, and its attendant risks, into the hands of the lecturers.

For some years it was maintained with difficulty, and much self-sacrifice on the part of the staff, during what may be termed a transitional period, in the hope, now realized, of its once more developing into an institution worthy of its old traditionary glories.

From its foundation down to the year 1862, the hospital occupied the original site near London Bridge, but in that year the property was sold for the extension of the railway accommodation, and the establishment temporarily removed to the Surrey Gardens, where it was carried on till the summer of 1871. In 1868 the first stone of the New Hospital at Westminster Bridge was laid by the Queen, and the completed building was opened by her Majesty in 1871. In September the patients were first admitted into the New Hospital, and the Medical School was opened on October the 2nd.

NIGHTINGALE NURSING SCHOOL.

The Committee of the "NIGHTINGALE FUND" have arrangements with the authorities of St. Thomas's for educating Women in the practice of Hospital Nursing. On the satisfactory completion of one year's probationary training, they will be required to enter into service as Nurses in St. Thomas's or some other Hospital or Infirmary. A limited number of gentlewomen can be admitted under special agreements to this course of training, with a view to qualify themselves for superior appointments, or as District Nurses.

The Regulations as to the admission of Candidates may be obtained by writing to Miss L. M. Gordon, the Matron, St. Thomas's Hospital,

London, S.E., to whom also application should be made by Institutions requiring trained Superintendents or Nurses.

Candidates should, whenever it is possible, make personal application to Miss Gordon, at the Matron's Office, at 10.30 a.m. on Tuesday or Friday.

The Nightingale Fund is the proceed of a public subscription raised at the close of the Crimean War, as a tribute to Florence Nightingale, for the services rendered by her in tending the sick and wounded soldiers in the Military Hospitals on the Bosphorus and at Balaklava. It was, by her request, vested in Trustees to enable her to establish an Institution for the training, sustenance, and protection of Nurses and Hospital attendants, and, as invested, produces an income of £1,400. The Fund is managed by a Council, appointed by her. The School was opened at old St. Thomas's in 1860 with 12 probationers, increased to 50 at the present time. More than 2,000 applications are received annually. 1,519 candidates have been admitted and 899 trained nurses have received appointments; many of these are now Matrons or Superintendents of Nurses.

The Secretary to the Council is Mr. Henry Bonham-Carter, 5 Hyde Park Square, W.

THE HOSPITAL.

The original Hospital latterly contained 500 beds. The present building contains in all 572 beds. It consists of six blocks appropriated to the reception of patients; with one for the administrative and other offices, and one for the Medical School. The Ward blocks, though connected by corridors, stand apart, so as to afford free exposure in all directions. The Wards, with the exception of four which are placed on the ground floor, occupy the first, second, and third floors. Generally, each Ward affords accommodation for 28 beds, which are placed against the piers between the windows, so as to secure thorough ventilation. In a small Ward annexed to each larger Ward there are two beds for cases requiring special care or treatment.

During the past year a Ward has been specially re-arranged for the reception of Male accident cases, with a view to ensuring quietness in the other Surgical wards. The ward fittings and furniture have been brought up to the most recent requirements, a small theatre has been instituted in place of the original bathroom for the performance of the minor operations necessary, and two small wards are provided for the isolation of noisy cases.

The operating theatres are unusually large, and have been lately thoroughly refitted, refloored, and provided with electric lighting. They are now peculiarly well adapted for the carrying out of aseptic surgery.

A Clinical Laboratory, which is quite distinct from the laboratories in the Medical School, has been recently erected on the east side of the Hospital, and is provided with every facility for bacteriological, microscopical, and chemical examination of the condition of the patients in the Wards. The investigations are carried on in the laboratory by the Superintendent, whose whole time is devoted to this work, which comprises all those methods of examination which from their difficulty and complexity cannot be carried out at the bedside, and they have in view the completion of the Hospital record of each patient.

Of the whole accommodation of the Hospital, about 210 beds are appropriated to Medical cases, and 270 to Surgical cases. There are special Wards for the reception of diseases peculiar to women (30 beds); for diseases of the eye (25 beds); and for children under 6 years of

age (30 beds). In one of the blocks, separated from the rest of the establishment, there are Wards for infectious diseases.

The space provided for each bed in the ordinary Wards is upwards of 1,800 cubic feet, and in the block appropriated to infectious diseases, about 2,500 cubic feet.

The Department for Out-patients has been recently re-arranged, and it is now perfectly adapted both for the management and treatment of patients and for the teaching of students. There have been added two large rooms, well ventilated, well lighted, provided with ample sitting accommodation, so arranged that large numbers of Students are able to follow and grasp the method of examination and the basis of treatment employed by the Assistant-Physician and Assistant-Surgeon.

During the past year a very complete aseptic operating room has been added to the Department, in order that the minor operations may be performed under the most satisfactory conditions.

The Ophthalmic Department comprises a well-arranged out-patient room, a dark room for ophthalmoscopic examination, and an operating room.

There is also a series of rooms devoted to the other special departments, and a room set apart and fitted up for Physical Exercises.

A very complete department for the systematic use of the Röntgen Ray photography has been fitted up at considerable expense, and has proved to be of great value as an aid to diagnosis.

During the twelve months ending December 31st, 1898, the number of patients admitted into the Hospital amounted to 6,079. In the same period, 19,191 Out-patients have been treated, and in the Maternity department 2,474 women have been attended at their own homes. Casualties, to the number of 91,424 attendances, were treated during the same period.

THE MEDICAL SCHOOL.

The School buildings, isolated by a large quadrangle from the Hospital, stand at its southern extremity, between the river and the gardens of Lambeth Palace. They are very commodious, and every effort has been made to provide accommodation completely fulfilling modern requirements.

In the year 1885 the Anatomical Department was much enlarged and remodelled. In 1892 considerable alterations were carried out in the Physiological Department, giving increased space in the Laboratory and providing facilities for lectures and lantern demonstrations. In 1893-4 further extensive alterations were made. Two new wings were added to the main building, containing a large laboratory for the classes in Elementary Biology and Pathology, private working rooms for the teachers in those departments, a dissecting room for the Biology class, improved accommodation for the Operative Surgery class, and a large class room for the classes in Practical Surgery. At the same time the collection of Physical Apparatus was removed to a laboratory *en suite* with the Chemical Department.

New premises were also provided for the Students' Club, to which a Gymnasium has been added, and the arrangements are now such as to render it quite unnecessary for Students to leave the School buildings during the working hours of the day. Electric Lighting has been introduced into the new departments and part of the older building.

The plan inserted between pages 14 and 15 shows the changes in detail, both on the ground and first floors.

THE MUSEUM OF HUMAN AND COMPARATIVE ANATOMY AND PATHOLOGY.

Curator.—S. G. SHATTOCK, ESQ., F.R.C.S.

The Museum, which is of ample size and well lighted, has two galleries devoted entirely to the display of specimens illustrating Pathology; the different series are each preceded by a normal preparation of the organ to which they refer.

On the ground floor are the collections of Normal Human, and of Comparative Anatomy; there is, moreover, a series of type specimens of Pathology, selected to facilitate the study of this subject.

THE COLLECTION OF HUMAN ANATOMY contains a large number of dissected Preparations, illustrating the Organs of Locomotion and Sense; the Nervous System; the Digestive, Respiratory, and Urinary Apparatus; the Vascular System and Organs of Reproduction; and, in addition, a series of elaborate dissections. A new Catalogue of this collection has been drawn up by Mr. Shattock.

THE PATHOLOGICAL COLLECTION contains above 3,000 specimens, arranged in series as follows:—Injuries and Diseases of the Organs of Motion; of the Organs of Digestion, of Circulation, of Respiration, of the Nervous System, of the Genito-Urinary System, and Malformations. The descriptive Catalogue of this collection has been entirely re-written by Mr. Shattock: the previous edition was edited by Mr. Sydney Jones.

Among the earliest contributors to the Museum were Mr. Cline, Sir A. Cooper, Mr. Travers, and Mr. Tyrrell; and many of the specimens are of great historical interest; those used by Sir A. Cooper to illustrate his works on Dislocations and Fractures, on Hernia, and on the Testis, are contained amongst them, as well as two preparations showing the result of Ligature of the Abdominal Aorta, one a case of Sir A. Cooper's, another that of Mr. J. F. South's. In the collection, too, are Mr. Travers's preparations illustrating the process of nature in repairing Injuries of the Intestines, and those furnished by his experiments on the ligature of Arteries.

The section of Fractures has been enriched by Sir William MacCormac, who presented numerous specimens of gun-shot injuries, etc., obtained from cases under his care during the Franco-German War (1870); that of Diseases of the Liver, by a large number of Biliary Calculi presented by Dr. Ord; and that of Diseases of the Larynx, by specimens presented by Sir Felix Semon.

THE COLLECTION OF COMPARATIVE ANATOMY comprises about 400 dissected Preparations, and in addition an equal number of most carefully prepared osteological specimens. A large number of these dissections were made by Sir A. Cooper, to illustrate his Lectures, when Professor of Comparative Anatomy to the Royal College of Surgeons. A new Catalogue of this collection has been drawn up by Mr. F. G. Parsons.

THE CABINETS OF MICROSCOPICAL ANATOMY, which are under the charge of the Demonstrator of Practical Physiology, are available for

use by Students who wish to examine them, subject to such regulations as may be deemed necessary.

THE MATERIA MEDICA MUSEUM contains in cases a complete collection of all the chemicals and organic substances included in the British Pharmacopœa ; all these are named and numbered. A second collection of all the chief medicinal substances is placed in drawers and is freely accessible to students. A large and very fine collection of dried medicinal plants, named according to the latest nomenclature, is displayed on the walls of the Museum.

The Museum is under the conjoint superintendence of the Lecturer on Pharmacy and Pharmacology and Mr. Shattock.

THE COLLECTION OF CHEMISTRY AND MINERALOGY is under the superintendence of Mr. Dunstan. The majority of the specimens were presented by the late Dr. Bernays.

The Museums are open to Students daily from 9 a.m. till 5 p.m., and every encouragement is given to Students to make use of the well-arranged educational series.

THE LIBRARY.

Librarian :—G. S. SAUNDERS, ESQ.

The Library, to which Students have access with the permission of the Librarian, and which can be used by them as a Reading Room, has been recently completely re-arranged and re-catalogued, and electric lighting has been introduced. It contains a valuable collection of standard works ; various periodicals are regularly taken in, and a number of modern text books are added from time to time for reference.

LABORATORIES, THEATRES AND CLASS ROOMS.

The Chemical, Physiological, and Anatomical Departments are complete in themselves. They consist of large Laboratories for Classes, Private Laboratories, and each is provided with its own Lecture Room. A separate Laboratory for the practical teaching of Physics contains the Physical Apparatus.

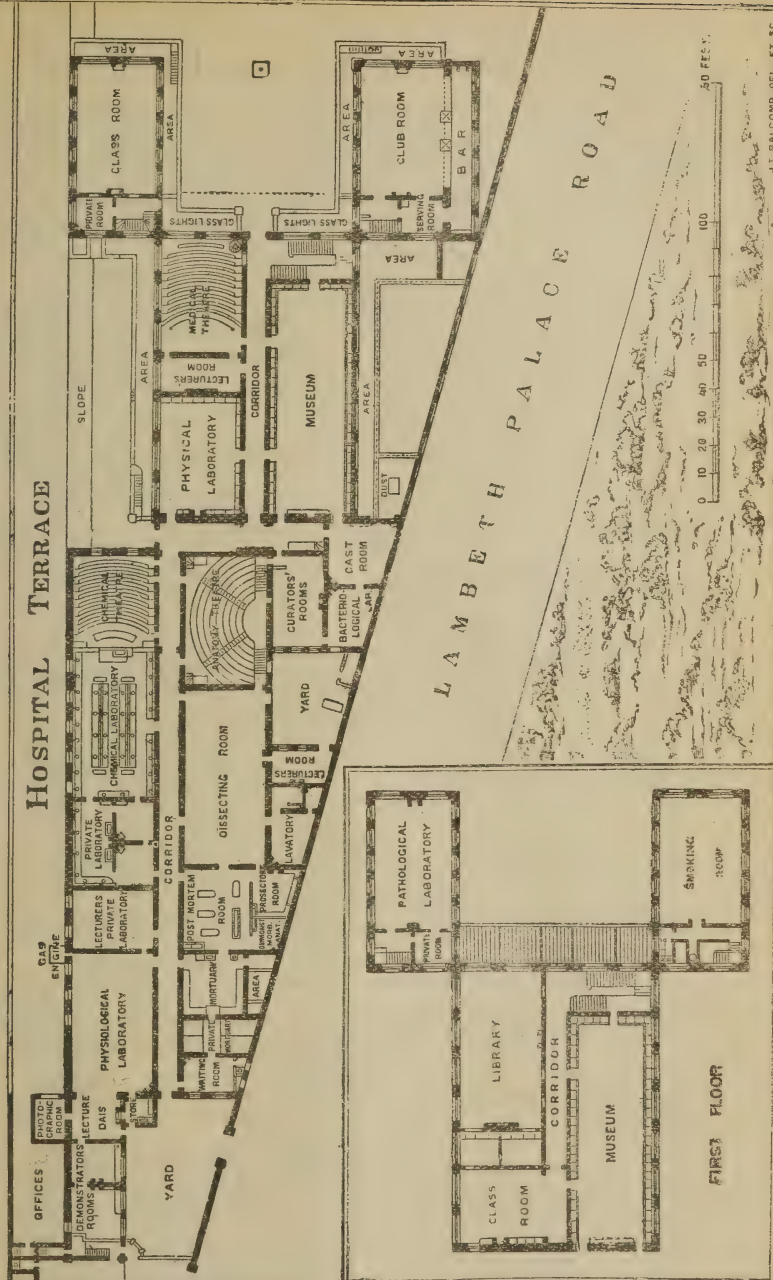
The Pathological Department beyond the Museum and Post Mortem rooms is provided with a large Laboratory for the Class in Pathological Histology, and a Bacteriological Laboratory under the charge of Mr. Shattock.

The Elementary Biology lectures and demonstrations are given in the large new Laboratory, and the Biological Dissecting Room and Lecturers' Private Room are contained in the same building.

A special Theatre is devoted to the use of the Lecturers giving the more advanced systematic courses, such as Medicine, Surgery, &c., and two large class rooms are available for the Tutorial Classes held in connection with these courses. Special accommodation has also been provided for the Classes in Operative Surgery.

The new buildings were opened by H.R.H. the Duke of Connaught, K.G., President of the Hospital, on June 9th, 1894.

HOSPITAL TERRACE



GROUND PLAN.

MEDICAL AND SURGICAL OFFICERS.

Consulting Physicians.—JOHN HARLEY, M.D. Lond., W. M. ORD, M.D. Lond.

Consulting Surgeons.—Sir JOHN SIMON, K.C.B., Hon. M.D. Dub., F.R.S., D.C.L.; SYDNEY JONES, M.B. Lond.; JOHN CROFT; Sir WILLIAM MACCORMAC, Bart., K.C.V.O., M.A., D.Sc., M. Ch. Hon. Causâ, Pres. R.C.S. Eng.

Consulting Obstetric Physician.—H. GERVIS, M.D. Lond.

Consulting Ophthalmic Surgeons.—R. LIEBREICH; E. NETTLESHIP.

Physicians.

J. F. PAYNE, M.D. Oxon.
S. J. SHARKEY, M.A., M.D. Oxon.
T. D. ACLAND, M.A., M.D. Oxon.
H. P. HAWKINS, M.A., M.D. Oxon.

Assistant Physicians.

H. W. G. MACKENZIE, M.A., M.D. Cantab.
H. G. TURNEY, M.A., M.D. Oxon.
J. J. PERKINS, M.A., M.B. Cantab.
W. S. COLMAN, M.D. Lond.

Obstetric Department.

Physician.—C. J. CULLINGWORTH, M.D.
Assistant Physician.—W. W. H. TATE, M.D. Lond.

Children's Department.

Physician.—W. S. COLMAN, M.D. Lond.

Throat Department.

Surgeon.—H. B. ROBINSON, M.S. Lond.

Vaccination Department.

Physician.—R. CORY, M.A., M.D. Cantab.

Dental Department.

Surgeon.—C. E. TRUMAN, M.A. Cantab.

Surgeons.

H. H. CLUTTON, M.A., M.C. Cantab.
WILLIAM ANDERSON.
B. PITTS, M.A., M.C. Cantab.
G. H. MAKINS.

Assistant Surgeons.

W. H. BATTLE.
C. A. BALLANCE, M.S. Lond.
H. B. ROBINSON, M.S. Lond.
F. C. ABBOTT, M.S. Lond.

Eye Department.

Surgeon.—J. B. LAWFORD.
Assistant Surgeon.—J. H. FISHER, B.S. Lond.

Electrical Department.

Physician.—H. G. TURNEY, M.A., M.D. Oxon.

Skin Department.

Surgeon.—WILLIAM ANDERSON.

Ear Department.

Surgeon.—F. C. ABBOTT, M.S. Lond.

Dental Department.

Surgeon.—C. E. TRUMAN, M.A. Cantab.

Resident Assistant Physician.

C. R. BOX, M.D. Lond.

Resident Assistant Surgeon.

C. S. WALLACE, B.S. Lond., F.R.C.S.

Anæsthetists.

WALTER TYRRELL, E. H. G. MORRIS, B.A., M.B. Cantab.,
H. LOW, M.A., M.B., B.C. Cantab., H. C. CROUCH.

Demonstrators of Morbid Anatomy.

H. G. TURNEY, M.A., M.D. Oxon., J. J. PERKINS, M.A., M.B. Cantab.,
W. S. COLMAN, M.D. Lond.

Consulting Chemist.

WYNDHAM R. DUNSTAN, M.A. Oxon.,
F.R.S.

Pharmacist.

EDMUND WHITE, B.Sc. Lond.

Superintendent of the Clinical Laboratory.
L. L. JENNER, M.A., M.B. Oxon.

Superintendent of the X Ray Department.
A. BARRY BLACKER, M.D.

Registrars.

Medical.

A. E. RUSSELL, M.D. Lond.

Surgical.

H. J. MARRIAGE, M.B. Lond.

Obstetric.

J. S. FAIRBAIRN, B.A., M.B.,
B.Ch. Oxon.

Lecturers.

A. W. BENNETT, M.A., B.Sc. Lond.
WYNDHAM R. DUNSTAN, M.A., F.R.S.
J. B. LEATHES, M.B., B.Ch. Oxon.
F. G. PARSONS, F.R.C.S.

H. RAYNER, M.D.
EDWARD SEATON, M.D.
S. G. SHATTOCK, F.R.C.S.

Curator of the Museum.

S. G. SHATTOCK, F.R.C.S.

Dean of the School.

H. P. HAWKINS, M.A., M.D. Oxon.

Librarian.

G. S. SAUNDERS.

Secretary to the School.

GEORGE RENDLE, M.R.C.S.

LECTURERS AND DEMONSTRATORS.

LECTURERS.

<i>Elementary Biology</i>	Mr. PARSONS.
<i>Chemistry, Chemical Physics, and Practical Chemistry</i>	Mr. DUNSTAN.
<i>Descriptive Anatomy</i>	Mr. PARSONS and Mr. ROBINSON.
<i>General Anatomy and Physiology</i>	Dr. LEATHES.
<i>Practical Physiology and Histology</i>	Dr. TATE.
<i>Midwifery</i>	Dr. CULLINGWORTH.
<i>Diseases of Women</i>	Mr. BALLANCE and Mr. BATTLE.
<i>Practical and Manipulative Surgery</i>	Dr. PAYNE and Dr. SHARKEY.
<i>Medicine</i>	Mr. PITTS and Mr. ANDERSON.
<i>Surgery</i>	Dr. TURNER, Dr. PERKINS and Mr. SHATTOCK.
<i>Pathology and Bacteriology</i>	Dr. CORY and Dr. COLMAN.
<i>Forensic Medicine and Toxicology</i>	Dr. MACKENZIE.
<i>Pharmacology and Therapeutics</i>	Mr. LAWFORD.
<i>Diseases of the Eye</i>	Dr. RAYNER.
<i>Mental Diseases</i>	Dr. SEATON.
<i>Public Health and Sanitary Science</i>	Sir WILLIAM MACCORMAC, Bart. (EMERITUS LECTURER).
<i>Clinical Surgery</i>	The PHYSICIANS.
<i>Clinical Medicine</i>	Dr. CULLINGWORTH.
" " <i>Gynæcological</i>	The SURGEONS.
" <i>Surgery</i>	Mr. LAWFORD.
" " <i>Ophthalmic</i>	Mr. DUNSTAN.
<i>Physics</i>	Mr. BENNETT.
<i>Botany</i>	Mr. PARSONS.
<i>Comparative Anatomy and Zoology</i>	

TEACHERS AND DEMONSTRATORS.

<i>Chemistry</i>	Dr. CROSSLEY and Mr. LE SUEUR.
<i>Physics</i>	Mr. LE SUEUR.
<i>Practical Pharmacy</i>	Mr. EDMUND WHITE.
<i>Practical Anatomy</i>	Mr. PARSONS, Mr. ROBINSON and Mr. FISHER.
<i>Physiology and Practical Physiology</i>	Dr. LEATHES, with Dr. SIKES.
<i>Practical Medicine</i>	Dr. PERKINS and Dr. COLMAN, with Dr. RUSSELL.
<i>Practical and Manipulative Surgery</i>	The LECTURERS, with Mr. RICHARDSON.
<i>Operative Surgery</i>	Mr. MAKINS, Mr. BATTLE, and Mr. BALLANCE.
<i>Practical Obstetrics</i>	Dr. TATE.
<i>Electro-Therapeutics</i>	Dr. TURNER.
<i>Morbid Anatomy</i>	Dr. TURNER, Dr. PERKINS, and Dr. COLMAN.
<i>Morbid Histology and Bacteriology</i>	Dr. PERKINS.
<i>Diseases of the Eye</i>	Mr. FISHER.
" " <i>Throat</i>	Mr. ROBINSON.
" " <i>Skin</i>	Mr. ANDERSON.
" " <i>Ear</i>	Mr. ABBOTT.
" " <i>Teeth</i>	Mr. TRUMAN.
<i>Vaccination</i>	Dr. CORY.

SUGGESTIONS TO STUDENTS ABOUT TO ENTER THE MEDICAL PROFESSION.

Registra-
tion.*

The commencement of Medical Study cannot be registered at the Office of the General Medical Council until the Student has passed a Preliminary Examination in the subjects of General Education as specified in the following list :

(1) English Language ; (2) Latin ; (3) Arithmetic, Algebra, and Euclid--Books I., II., III. ; (4) Either Greek, Logic or any Modern Language.

Preliminary
Examina-
tions.

A student who has not passed such an examination is recommended to pass either the Matriculation of the University of London, or the Professional Preliminary Examination of the College of Preceptors. The regulations respecting these may be obtained from the Registrar, University of London, Burlington Gardens, W., and the Secretary, College of Preceptors, Bloomsbury Square, W.C.

Certificates of Graduation, Matriculation, and the Local Examinations of British and Colonial Universities are accepted by the General Medical Council provided that the above-mentioned subjects be shown to have been included.

London
University.

Students who propose to obtain Medical Degrees in the University of London must pass both the Matriculation and the Preliminary Scientific Examinations before commencing their regular Medical Studies.

For the Preliminary Scientific Examination and the Intermediate Examination in Medicine special classes are held during the Winter and Summer Sessions (see p. 38).

For a Student who enters in October, intending to obtain the double qualification of the "Conjoint Board" (L.R.C.P. Lond. and M.R.C.S. Eng.), the following course of study is recommended. (For days and hours of Lectures, &c., see Time Table, p. 28.)

All Students are required to apply to the Medical Secretary for cards of Admission to the Lectures, attendance on which is in all cases registered.

First Winter Session.

Lectures.&c.

Anatomy, Elementary Biology, Elementary Physiology, Chemistry, Practical Chemistry, and Physics. Anatomical and Physiological Demonstrations. Dissections.

Examina-
tions.

"Sessional" at Medical School in December and in March. Part III. (Elementary Biology)[†] of First Examination of the "Conjoint Board," in March.

First Summer Session.

Lectures.&c.

Chemistry, Practical Chemistry, Histology, Demonstrations in Practical Pharmacy ; Practical Instruction in Pharmacy may be obtained from the Hospital Pharmaceutist. (Fee, three guineas for three months, p. 37.)

Examina-
tions.

"Sessional," and Parts I. (Chemistry and Physics)[†] and II. (Practical Pharmacy) of the "First Conjoint," in July.

* The Regulations of the General Medical Council with regard to Registration may be obtained from Messrs. Spottiswoode & Co., 54, Gracechurch Street, London, E.C.

† Students cannot present themselves for the "Second Conjoint" until the lapse of twelve months from the date of passing Biology and Chemistry.

Second Winter Session.

Anatomy and Physiology with Demonstrations and Dissections. Lectures.
 Practical and Chemical Physiology. Tutorial Classes in Anatomy
 and Physiology.

"Sessional" in December and in March; "Tests," and "Second Con-
 joint" (Anatomy and Physiology) in March, or June. Examinations.

Second Summer Session.

Hospital Practice, Medical and Surgical.

Midwifery, Practical Surgery.

"Sessional" in July.

The course of instruction in Practical Medicine must be attended
 by Candidates for Out-Patient Clinical Clerkships, and the course of
 Elementary Practical Obstetrics by Candidates for Obstetric Clerkships. Lectures.
 Examinations.

Third Winter Session.

Hospital Practice, Medical and Surgical.

Medicine, Surgery, and Surgical Pathology, Practical Surgery, Lectures,
 Practical Course of Pathological Anatomy.

Clinical Clerkship (if not held during July, August, and September),
 and Dressership, in the Out-Patient Departments.

Maternity Cases may be attended at any time after the Lectures on
 Midwifery and a course of Practical Obstetrics by Students who have
 passed the "Second Conjoint."

Third Summer Session.

Hospital Practice, Medical and Surgical, with Clerkship or
 Dressership.

Practical Course of Pathological Anatomy (continued), including Lectures.
 Practical instruction in Bacteriology, Forensic Medicine, Mental
 Disease, Therapeutics, and Public Health.

Fourth Winter Session.

Hospital Practice, Medical, Surgical, the Special Departments, and
 Post-mortem Examinations. Clerk or Dress in special Departments
 and Post-mortem Room. Instruction in Vaccination (Fee, one
 guinea, p. 37).

Practical Course of Pathological Anatomy (if not taken in third Lectures.
 winter), Clinical Lectures on Medicine and Surgery; Obstetric
 Demonstrations; Diseases of Women; Diseases of the Eye.

Fourth Summer Session.

Hospital Practice, Medical and Surgical, and Special Departments. Lectures.
 Clinical Medicine, Clinical Surgery.

Fifth Year.

Hospital Practice, Medical and Surgical, and the Special Depart-
 ments.

Tutorial Classes in Medicine, in Surgery, including operations upon
 the Dead Subject, and in Midwifery.

Attendance at a Fever Hospital and Clinical Demonstrations at a
 recognised Lunatic Asylum.

School Examinations in Medicine, Surgery, Midwifery, Pathology, Examinations.
 Pharmacology, Forensic Medicine (including Insanity) and Public
 Health (see p. 33.).

Advanced Students are strongly advised to avail themselves of the opportunities afforded for Clinical Study of Fevers at the Hospitals of the Metropolitan Asylums Board, and of Mental Diseases at Bethlem Hospital in their fifth year.

Candidates for part III. of the Final Examination for the Diploma in Medicine and Surgery of the "Conjoint Board" are required to produce a certificate of attendance on not less than twenty labours. Students who have passed the "Second Conjoint," and have attended Lectures on Midwifery, and a Course of Elementary Practical Obstetrics, may enter their names for the Rota of Obstetric Clerks.

Examina-
tions.

No Student is admitted to part I. or II. of the Third Examination of the "Conjoint Board" until at least two years after passing the Second Examination, and five Winter and five Summer Sessions after Registration.

Preliminary Summer Session.

If a Student enters in May, intending to obtain the qualification of the Conjoint Board, he is advised to pursue the following course of study:—

Lecturer.

Elementary Biology, Lectures and Classes in Chemistry and Demonstrations in Practical Pharmacy.—Practical Instruction in Pharmacy may be obtained from the Hospital Pharmaceutist (Fee, three guineas for three months, p. 37).

Botany (if required for a higher examination).

Examina-
tions.

Part II. (Practical Pharmacy) of "First Conjoint" in July or October.

NOTE.—Students who join a Medical School in May have the advantage of an additional three months to devote to the preparation for the three parts of the First Examination of the "Conjoint Board," and of passing in Elementary Biology at Christmas.



All Students are required by the Governors to conform to the Regulations of the Hospital and Medical School, and the School Committee is empowered, with the approval of the Treasurer, to suspend or remove a Student at any time for adequate reason. (See also p. 36.)

During the fourth and fifth years, the greater part of the time can, and should, be given to the practical study of disease in the Wards, Out-Patient Departments, and Post-Mortem Room, but Students are reminded that such courses of lectures as relate to Final Examinations may be with advantage re-attended.

Students intending to prepare for **University Degrees and other higher Examinations** should apply to the Medical Secretary for information relating thereto. (For Special Classes for these Examinations see p. 38.)

Students when qualified should use every effort to obtain one or more of the senior appointments open to them, especially those of House Physician, House Surgeon, and Obstetric House Physician. These and other appointments, of which details are given at p. 31, afford opportunities for obtaining practical professional knowledge which cannot be estimated too highly. No payment is required for any of them.

N.B.—The Regulations for the Sessional Examinations and Prizes will be found on pp. 32-33.

TIMES OF ATTENDANCE OF THE PHYSICIANS AND
SURGEONS IN THE WARDS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
DR. PAYNE	2	—	—	2	—	—
DR. SHARKEY	—	2	—	—	2	—
DR. ACLAND.....	2	—	—	2	—	—
DR. HAWKINS.....	—	2	—	—	2	—
DR. CULLINGWORTH	—	2	—	—	2	—
MR. CLUTTON	—	2	—	—	2	—
MR. ANDERSON	2	—	—	2	—	—
MR. PITTS	—	2	—	—	2	—
MR. MAKINS	2	—	—	2	—	—
MR. LAWFORD	—	2	—	—	2	—
CLINICAL LECTURES {	Medical ..	—	2	—	—	—
	Surgical.....	—	9.30	—	—	—

TIMES OF ATTENDANCE OF THE ASSISTANT-PHYSICIANS
AND ASSISTANT-SURGEONS IN THE OUT-PATIENTS' ROOMS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
DR. MACKENZIE	—	—	1.30	—	—	1.30
DR. TURNEY	—	1.30	—	—	1.30	—
DR. PERKINS	1.30	—	—	1.30	—	—
MR. BATTLE	—	1.30	—	—	1.30	—
MR. BALLANCE	1.30	—	—	1.30	—	—
MR. ROBINSON	—	—	1.30	—	—	1.30

TIMES OF ATTENDANCE IN THE OUT-PATIENT SPECIAL
DEPARTMENTS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
MR. LAWFORD } (Diseases of {	—	1.30	—	1.30	1.30	—
MR. FISHER } the Eye) {	1.30	—	1.30	—	—	—
DR. TATE (Diseases of Women).....	—	—	1.30	—	—	1.30
DR. COLMAN (Diseases of Children)	—	—	10.30	—	—	—
MR. ROBINSON (Diseases of Throat)	—	—	—	1.30	—	—
MR. ANDERSON (Diseases of Skin).	—	—	—	—	1.30	—
MR. ABBOTT (Diseases of Ear)	1.30	—	—	—	—	—
DR. TURNEY (Electro-Therapeutics)	—	—	—	2	—	—
DR. BLACKER (X Ray).....	—	2	—	—	2	—
MR. TRUMAN (Diseases of Teeth)..	—	10	—	—	10	—
DR. CORY (Vaccination)	—	—	11.30	—	—	—
DR. RAYNER (Mental Diseases) ...	—	—	—	10	—	—

HOSPITAL PRACTICE.

CLINICAL TEACHING OF MEDICINE AND SURGERY.

CLINICAL instruction is given daily by the Physicians and Surgeons during their visits to the Wards, and by the Assistant Physicians and Assistant Surgeons in the Out-Patient Departments (Time Table, p. 20). Clinical Lectures in Medicine and Surgery are given every Wednesday throughout the sessions at 2 p.m. and 9.30 a.m. respectively. A Special Course is also given by Sir W. MACCORMAC, Bart., K.C.V.O.

Diseases of Women.—Clinical instruction is given in Adelaide Ward on Tuesdays and Fridays at 2 p.m., and in the Out-Patient room on Wednesdays and Saturdays at 1.30 p.m.

Diseases of Children.—Instruction is given in the Out-Patient room on Wednesdays at 10.30 a.m. During the Winter Session Dr. Colman will give a short course of lectures.

Midwifery.—A maternity department is connected with the hospital, women being attended in confinement at their own homes by students of the hospital, under the supervision of the Assistant Obstetric Physician (p. 32). Students are accompanied to their first three cases by one of the Obstetric House Physicians.

Diseases of the Eye.—Clinical teaching in the Out-Patient rooms daily except Saturday (Time Table p. 20). Clinical Lectures or Ophthalmoscopic Demonstrations weekly.

Diseases of the Skin.—Clinical instruction by Mr. ANDERSON on Fridays.

Diseases of the Throat.—Clinical instruction by Mr. ROBINSON on Thursdays. During the Winter Session a short course of Clinical Lectures is given to senior students.

Diseases of the Ear.—Clinical instruction by Mr. ABBOTT on Mondays. During the Winter Session Mr. ABBOTT gives a short course of Lectures to senior students.

Mental Diseases.—Clinical instruction by Dr. RAYNER on Thursdays.

Diseases of the Teeth.—Mr. TRUMAN and Assistant give instruction in Dental Surgery on Tuesdays and Fridays.

Vaccination is taught practically by Dr. CORY, who is authorised by the Local Government Board to give certificates of proficiency in Vaccination at St Thomas's Hospital. Fee, One Guinea (see p. 37).

Electro-Therapeutics.—Instruction is given by Dr. TURNEY on Thursdays.

Physical Exercise.—Instruction is given by Mr. ABBOTT in the Department on Tuesdays and Fridays.

Anæsthetics.—The mode of Administration is taught practically by Mr. TYRRELL, Dr. MORRIS, Dr. LOW, and Mr. CROUCH.

DAYS AND HOURS FOR SURGICAL OPERATIONS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Surgical Operations	2.0	2.0	2.0	2.0	2.0	2.0
Gynæcological „	—	—	—	2.0	—	—
Eye „	—	—	—	2.0	—	—
Throat „	9.30	—	—	—	—	—
Ear „	—	—	—	9.30	—	—

DAYS OF ATTENDANCE OF THE ANÆSTHETISTS.

Departments.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
<i>Operating Theatre.</i> { Mr. CLUTTON Mr. ANDERSON Mr. PITTS Mr. MAKINS...	Mr.Crouch A. H. S.	Dr. Low	Mr.Tyrrell	A. H. S. Mr.Crouch Dr. Morris	A. H. S.	Mr.Tyrrell Dr. Morris
		A. H. S.	Dr. Morris			
			Dr. Low			
GYNÆCOLOGICAL WARD				Dr. Morris		
EYE DEPARTMENT				Mr.Tyrrell		
EAR DEPARTMENT				Dr. Low		
THROAT DEPART- MENT	Mr.Crouch 9.30 a.m.			9.30 a.m.		
DENTAL DEPART- MENT		Mr.Crouch 10 a.m.				

POST MORTEM EXAMINATIONS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Dr. TURNEY	—	—	2.0	—	—	—
Dr. PERKINS	—	2.0	—	—	2.0	—
Dr. COLMAN	2.0	—	—	2.0	—	2.0

LECTURES, CLASSES, & DEMONSTRATIONS.

A complete list of Lecturers and Demonstrators, p. 16.

Time-table of days and hours of Lectures, &c., p. 28.

The attendance on all courses of Lectures is registered.

ELEMENTARY BIOLOGY.

MR. PARSONS.

A six months' practical course to meet the requirements of the "Conjoint Board" is held from October to March, and a revision class from May to July.

Special classes, for the Preliminary Scientific, are commenced in October for the July examination of the University of London. (Fee, see p. 38.)

BOTANY.

MR. BENNETT, B.Sc.

A course of lectures on Systematic Botany is given during the Summer Session. It comprises the general principles of the classification of plants, with demonstrations of the characters of all the more important natural orders, especially those of medicinal value. The lectures are illustrated by diagrams and fresh specimens. (Fee, see p. 37.)

Special classes for the London University and other examinations commence in October. (Fee, see p. 38.)

COMPARATIVE ANATOMY.

MR. PARSONS.

A course of six lectures, especially intended for the primary examination for the Fellowship of the College of Surgeons, is given twice yearly. (Fee, see p. 37.)

CHEMISTRY AND CHEMICAL PHYSICS.

MR. DUNSTAN, F.R.S.

LECTURES on Chemistry and Chemical Physics are given three times weekly during the Winter Session, and on Chemistry during the Summer Session. These lectures are fully illustrated by experiments.

A course of Practical Work is commenced in January and is continued during the Summer Session.

These courses include the subject-matter of the various Examining Boards, and are specially arranged to afford the student an insight into the principles of chemical science and their application in Medicine.

A course of Chemical Demonstrations is given in connection with the Lectures on Toxicology and Forensic Medicine.

Special classes are held for students preparing for the Preliminary Scientific and Intermediate M.B. Examinations of the University of London, and for the Examinations of other Universities. (Fee, see p. 38.)

A special course of Practical Instruction is given in the Laboratory to Candidates for Diplomas in Public Health. (Fee, see p. 37.)

Arrangements may be made for additional Practical Work (Elementary and Advanced) in the Chemical Laboratory at fees which may be ascertained from the Medical Secretary.

ANATOMY.

MR. PARSONS AND MR. ROBINSON.

(a) **ELEMENTARY.**—A six months' course, consisting of two lectures and one oral examination weekly, is given for first-year students, dealing with osteology and attachments of muscles and ligaments.

(b) **ADVANCED.**—A six months' course, consisting of three lectures and one oral examination weekly, is given for second-year or more advanced students.

The lectures are illustrated by fresh dissections and preparations.

Classes, conducted partly by examination, partly by demonstration, are held during the latter half of the Winter Session, and deal with those sections of anatomy which cannot be included in the lecture course.

(c) **PRACTICAL.**—During both winter and summer sessions the dissecting room is open for the use of students, and the demonstrators attend daily. A number of stock preparations are displayed in the room, and the others are preserved for use in the tutorial classes.

Tutorial classes are held prior to the January, March and July examinations of the "Conjoint Board," which all candidates are allowed to attend. A verbal test examination is held three weeks prior to the examinations, at which candidates must satisfy the teachers as to their knowledge before obtaining the necessary signatures to their schedules.

Special classes in advanced anatomy are conducted by the lecturers and demonstrators for the various University and the Fellowship of the College of Surgeons examinations. (Fee, see pp. 37, 38.)

PHYSIOLOGY.

DR. LEATHES.

A systematic course of lectures is given throughout the Winter and Summer Sessions. As certain portions of the subject are dealt with more fully in some years than in others Students are required to attend the course both in the first and second years.

An elementary tutorial class for first year students is held twice a week during the first part of the Winter Session.

An elementary practical class for second year Students is held in the first half of the Winter Session. An elementary course of Chemical Physiology, also for second year Students, is given in the second half of the Winter Session.

A practical class in Histology is held three mornings a week during the Summer Session, and is attended by first year Students. Each Student is practically instructed in the methods of preparing histological specimens.

Each Student for the purposes of this class must provide himself with a microscope, slides and cover glasses, drawing-book and pencils, box to hold twelve dozen specimens, forceps, scalpel, scissors, section-lifter, mounted needles, and six watch glasses.

A table, cupboard and drawer, chemicals, staining and mounting fluids, &c., are provided for him. A deposit of 10s. is charged for the use of a key and apparatus, and this is repaid at the end of the course if both are returned in proper order.

Tutorial classes in Physiology are held by the Demonstrators prior to the January, April, and July examinations of the "Conjoint Board."

A *special class* in advanced practical Physiology is held twice a week from October to March and consists of two parts. The first half of the course is devoted to the use and study of those instruments and experiments which are fitted to class work. The second half is a course of advanced Chemical Physiology. During this class, demonstrations are given of many experiments which cannot be carried out by the Students themselves. This class is intended for those preparing for University Examinations (Cambridge, London, Oxford), or for the Fellowship of the College of Surgeons. For attendance in this class a special fee of six guineas is charged.

PHARMACY, PHARMACOLOGY, AND THERAPEUTICS.

DR. MACKENZIE.

Lectures are given three times a week during the Summer Session, the course being specially adapted to the requirements of candidates for the examination of the "Conjoint Board."

This course embraces the actions of the various medicinal agents on the healthy body, and on general morbid conditions.

Demonstrations are given in the Materia Medica Museum by Mr. White and two assistants.

PRACTICAL PHARMACY.—Instruction is given by the Hospital Pharmacist, Mr. E. White, B.Sc., to students requiring it. (Fee, see p. 37.)

Special classes are arranged to meet the requirements of—(a) the "Conjoint Board," (b) the intermediate M.B. of the University of London, (c) the first M.B. of Oxford and second M.B. of Cambridge.

MIDWIFERY AND DISEASES OF WOMEN.

DR. CULLINGWORTH AND DR. TATE.

A systematic course of lectures on Midwifery is delivered by Dr. Tate during the Summer Session, embracing the physiology and pathology of pregnancy, labour, and the puerperal state, preceded by an account of the anatomy and development of the female pelvis, and of the placenta and foetal membranes.

A short course of Obstetric demonstrations on the model is given by Dr. Tate during the Winter Session.

A course of about twenty Lectures (chiefly Clinical) on the Diseases of Women is delivered by Dr. Cullingworth during the Winter Session.

A class is held by the Obstetric tutor for practical instruction in the mechanism and management of labour and the use of instruments. No student is allowed to attend maternity cases until he has attended this class.

Tutorial Classes are held prior to the January, April, and July Examinations of the "Conjoint Board."

MEDICINE.

DR. PAYNE AND DR. SHARKEY.

A systematic course of lectures on the Principles and Practice of Medicine is given three times weekly during the Winter Session.

Clinical lectures on Medicine are given once weekly throughout the Academic year, by the physicians to the Hospital in rotation. The subject of each is advertised beforehand in the Hospital and Medical School.

PRACTICAL MEDICINE.

DR. PERKINS AND DR. COLMAN.

An elementary course of practical instruction in the means of physical diagnosis is held for about a month prior to each quarterly appointment of out-patient clinical clerks; no student can be appointed until he has attended this class, or an equivalent course elsewhere. Instruction is given in the principles and method of examination of the circulatory, respiratory, urinary, digestive, and nervous systems. Tutorial Classes are held prior to the January, April, and July Examinations of the "Conjoint Board."

SURGERY.

MR. PITTS AND MR. ANDERSON.

A systematic course of lectures on General and Special Surgery is given three times weekly throughout the Winter Session. The subject, being too extensive for a six months' course, is completed in two Winter Sessions.

Clinical lectures on Surgery are given once weekly throughout the Academic year, by the surgeons to the Hospital in rotation. The subject chosen for each lecture is advertised beforehand in the Hospital and Medical School.

PRACTICAL SURGERY.

MR. BALLANCE AND MR. BATTLE.

During the Summer Session Mr. Battle holds a class once a week, providing special instruction for students about to apply for Out-patient dresserships. It comprises bandaging, the treatment of wounds the use of certain instruments and splints, and the demonstration of surgical landmarks on the living model. No student can be appointed a dresser until he has attended this class.

The Winter Course includes the diagnosis and treatment of fractures and dislocations, application of trusses and tourniquets, minor operations, treatment of hæmorrhage and surgical emergencies, and the completion of the Summer Course on instruments and applied anatomy.

The teachers of practical surgery are assisted by Demonstrators, who supervise the students after each lecture in the various manipulations on the living models provided.

Tutorial classes are held for six weeks prior to the January, April, and July examinations of the "Conjoint Board." These include general surgery, operative surgery, and surgical anatomy, by the teachers and Demonstrator of Practical Surgery; and surgical pathology, by Mr. Shattock.

OPERATIVE SURGERY.

Classes are held by Mr. Ballance previous to the January, April, and July examinations of the "Conjoint Board." The operations are performed by the students, subjects being provided at the expense of the school.

Special classes are held at convenient times by Mr. Makins and Mr. Battle, for students preparing for the higher examinations. (Fee, see p. 37.)

PATHOLOGY, PATHOLOGICAL ANATOMY, AND BACTERIOLOGY.

DR. TURNEY, DR. PERKINS, AND MR. SHATTOCK.

A course of lectures on General Pathology, Surgical Pathology, and the diseases of special organs is given by Dr. Turney, Dr. Perkins, and Mr. Shattock throughout the Winter and Summer Sessions. Each lecture is followed by a demonstration, in which the main points are illustrated by microscopical and museum preparations. Illustrative sections for microscopical examination are given to each student for preparation and mounting.

Mr. Shattock's course of lectures deals with morbid growths, with the pathological questions touched upon in the systematic course of Surgery, and with Bacteriology; in the latter subject Students receive practical instruction.

The Demonstrator of Morbid Histology holds occasional classes, in which the microscopical preparations contained in the pathological cabinet are shown and explained.

Students are selected annually to assist the Demonstrator of Morbid Histology.

Post-mortem examinations are performed daily at 2 p.m. by Dr. Turney, Dr. Perkins, or Dr. Colman, and demonstrations given. Students are appointed to act as clerks, and are required to make examinations under the supervision of the demonstrators.

ELEMENTARY PRACTICAL BACTERIOLOGY.

A short course is given during May and June by Mr. Shattock. (Fee, One Guinea, including materials.)

This course deals with the following subjects:—

1. Apparatus, and Preparation of Media.
2. The inoculation of various Media in Test tubes (Aerobic and Anaerobic).
3. The microscopic study of Bacteria by means of the Hanging Drop, and Dry Method.
4. The study and separation of Micro-Organisms by means of Plate-Cultures (Koch and Petri), of Roll- and Shake-Cultures.
5. The inoculation of Tubes from Plate- and Roll-Cultures, the making of Impression Preparations.
6. The staining of Micro-Organisms in sections by Gram's method and others; the Staining of Tubercular Sputum, of the Diphtheria Bacillus, Cholera Spirillum and other important Pathogenic forms.

N.B.—For the Diploma of Public Health this course is followed by a more detailed study of such Pathogenic organisms as those of Typhoid, Cholera, and Diphtheria; the examination of infected animals; and the Bacterial examination of water, air, and soil.

FORENSIC MEDICINE AND TOXICOLOGY.

DR. CORY AND DR. COLMAN.

A three months' course of lectures is given during the Summer Session, jointly by Dr. Cory and Dr. Colman.

The lectures cover the synopses of the various Examining Boards, and are supplemented in the toxicological section by demonstrations by Dr. Crossley.

MENTAL DISEASES.

DR. RAYNER.

A three months' course of lectures is given during the Summer Session, comprising Symptomatology, Causation, States and Forms of Disease.

1. Mental Defects—Idiocy, Imbecility, etc.
 2. Mental disorders—(a) States of Mental Depression, Melancholia, etc. ; (b) States of Mental Exaltation, Mania, etc. ; (c) States of Stupor ; (d) States of Chronic Disorder, and Dementia.
 3. Mental disorder in relation to diseases, causes, etc.
 - (a) General paralysis, epilepsy, and other neuroses. (b) Insanities of puberty, adolescence, pregnancy, parturition and lactation ; climacteric and senile insanities. (c) Insanities from injury, heat-stroke, fevers, etc. (d) Insanities from alcohol, lead, and other toxic agencies. (e) Insanity from gout, phthisis, and associated bodily diseases.
 4. General Pathology.
- Clinical Instruction is given by visits to Bethlem Hospital and other institutions for the Insane and Imbecile.

DISEASES OF THE EYE.

MR. LAWFORD AND MR. FISHER.

A course of about thirty lectures on the principal disorders and diseases of the Eye and its appendages is given during the Winter Session. Patients are frequently shown, or illustrative cases described. A lecture or demonstration of cases is given weekly during the Summer Session.

An elementary class for learning the use of the Ophthalmoscope is held in October, January, and May. Ophthalmoscopic cases are shown once a week during the Winter Session.

Oral classes and demonstrations are held in connection with the Surgical tutorial classes for the examinations of the "Conjoint Board."

A *Special Course* of operations on the dead subject is given by Mr. Fisher. (Fee, see p. 37.)

PUBLIC HEALTH.

DR. SEATON.

A course of lectures is given during the Summer Session, including :—

Water, Air, Soil, Food, the Dwelling—in relation to Health and Disease—Infectious and Epidemic Diseases, the principles of preventive measures—Quarantine Isolation—Hospitals, temporary or permanent—Provisions of the Act for Notification of Diseases—The principles of Disinfection and the mode of action of the chief disinfecting agents—Vaccination—Statistics in relation to public health—Statutes relating to public health—The powers and duties of Sanitary Authorities and their officers—Construction and Ventilation of Sewers, methods of sewage disposal and purification—Trades regulated under the Public Health Acts.

The lectures are usually supplemented by Public Health demonstrations, relating to water supply, systems of sewage disposal and purification, establishment and arrangement of Isolation Hospitals, house drainage, &c.

Special Classes for the Degree and Diploma in Public Health.—Dr. Seaton is prepared to receive applications, at the commencement of May, from gentlemen who are desirous of acquiring the special knowledge in the Sanitary organisation of large Towns and Counties which is required by the various examining bodies.

Mr. Shattock and Dr. Jenner will give a course of Bacteriology, beginning in May, and Mr. Dunstan will give two courses of laboratory instruction in Physics, Chemistry and Microscopy, beginning, respectively, in October and January.

St. Thomas's Hospital Medical School is one of the institutions recognised by the Universities of Oxford and Cambridge and the Royal Colleges of Physicians and Surgeons for the course of laboratory instruction.

DAYS AND HOURS OF LECTURES AND DEMONSTRATIONS. WINTER SESSION.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Years of Attendance
Elementary Biology, p. 22	—	12	—	12	—	—	1st Year.
Physics, Chemistry & Practical Chemistry p. 23	—	—	12	—	12	10.30	do.
Descriptive and Surgical Anatomy, p. 23 {	—	9.30	—	9.30	—	9.30	do.
	9.30	—	9.30	—	9.30	11	2nd Year.
Anatomical Demonstrations, p. 23	10½-4½	10½-4½	10½-4½	10½-4½	10½-4½	10½-1	1st & 2nd.
Physiology, p. 23	10.45	—	10.45	10.45	—	—	do.
Physiological { De- } Oct., Nov., Dec.	—	—	9.30	—	9.30	—	1st Year.
monstrations, p. 24 { Oct. to Mar.	—	10.45	—	—	10.45	—	2nd Year.
Practical Surgery, p. 25, Oct., Nov., Dec.	—	—	9	—	—	—	3rd Year.
Comparative Anatomy (six lectures), p. 23	—	—	11	—	—	—	3rd Year.
Medicine, p. 25 { 2nd and 4th six weeks	—	4.30	—	4.30	4	—	do.
{ 1st and 3rd six weeks	12.30	—	12.30	4	—	—	
Surgery, p. 25	9	—	—	9	—	9	do.
Bacteriology and Surgical Pathology, p. 26	—	—	—	12.30	12	—	do.
Diseases of Women, p. 24, Oct., Nov., Dec.	—	9	—	—	9	—	3rd or 4th.
Pathological Anatomy (Practical), p. 26	—	—	—	—	—	11½-1½	do.
Diseases of the Eye, { Oct., Nov., Dec.	4	—	—	—	5	—	do.
p. 27 { Jan., Feb., Mar.	4	—	—	—	—	—	do.
Obstetric Demonstrations (six), p. 24.....	—	—	4.30	—	—	—	do.

SUMMER SESSION.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Years
Botany, p. 22.....	—	10	10	—	—	—	1st Year.
Elementary Biology, p. 22	2	—	2	—	—	—	do.
Practical Pharmacy (Demonstration), p. 24	—	—	—	2	—	—	do.
Chemistry and Practical Chemistry, p. 23	11-1	—	—	—	10-1	11-12½	do.
Physiology, p. 23..... { Lecture	—	10	10	10	—	—	do.
{ Practical Class	—	11-1	11-1	11-1	—	—	do.
Anatomical Demonstrations, p. 23	11-4	11-4	11-4	11-4	11-4	11-1	2nd Year.
Midwifery, p. 24	—	9	9	9	9	—	do.
Comparative Anatomy (six lectures), p. 23	—	—	—	—	2	—	do.
Practical and Manipulative Surgery, p. 25	9	—	—	—	—	—	do.
Pathological Anatomy, p. 26	—	—	12	—	12	—	3rd Year.
Do. Demonstration, p. 26	—	—	—	—	—	11	do.
Forensic Medicine, p. 26	4	—	—	4	—	9	do.
Mental Diseases, p. 26.....	—	—	—	12.30	—	—	do.
Public Health and Sanitary Science, p. 27	12	—	—	—	—	—	do.
Pharmacology and Therapeutics, p. 24 ...	—	—	4.30	—	4.30	12	do.
Diseases of the Eye, p. 27	—	4.30	—	—	—	—	3rd or 4th.
Practical Bacteriology (six meetings), p. 26	—	—	—	12	—	—	do.

Clinical Lectures in Medicine and Surgery are given every Wednesday throughout the Sessions, at 2 p.m. and 9.30 a.m. respectively.

SCHOLARSHIPS, PRIZES, APPOINTMENTS, & HONORARY DISTINCTIONS.

OPEN SCHOLARSHIPS IN NATURAL SCIENCE.*

As an inducement to the study of Natural Science before the commencement of the strictly Medical Course, two Scholarships, of the value of £150 (*i.e.*, a free admission) and £60 respectively, are awarded annually, after an examination in Physics, Chemistry, and either Botany, Zoology or Physiology, at the option of Candidates. The Medical School Committee is empowered to grant an Exhibition of £20 to any *unsuccessful* competitor who obtains sufficient marks to qualify for a Scholarship.

These Scholarships are open to all Students not exceeding 24 years of age who have passed a recognised Preliminary Examination in Arts, and have not yet attended Lectures on Anatomy of the first year, without any condition as to their becoming Students of the Hospital, except in the case of successful Candidates, who must enter at once for the full curriculum. The Examination will be conducted by means of written papers and practical work, and will be held on the 27th, 28th, and 29th of September, 1899. The standard, so far as the subjects are the same, will be that of the Preliminary Scientific Examination for Honours of the University of London. Competitors are required to send in their names with choice of optional subject and Certificate of Birth and of Preliminary Examination to the Medical Secretary not later than September 19th.

UNIVERSITY SCHOLARSHIP.*

A Scholarship of the value of £50 will be offered for competition in the last week of September after an examination in any two of the following subjects: Anatomy, Physiology, Chemistry. It is open to Students who have completed their examinations in Anatomy, Physiology, and Materia Medica and Pharmacy for a Medical Degree in any of the Universities of the United Kingdom, and have not entered as Students in any London Medical School.

THE WILLIAM TITE SCHOLARSHIP.

This Scholarship, founded by the late Sir W. TITE, C.B., M.P., F.R.S., of the value of £27 10s., is awarded each year to the Student placed highest in the 1st Class List in the examinations at the end of the first Winter Session. Preference, in case of equality between Students, is to be given to the son of a medical man, and more particularly of one who has been educated at St. Thomas's Hospital or is in Practice in Bath.

THE MUSGROVE SCHOLARSHIP.

This Scholarship, founded by Sir JOHN MUSGROVE, Bart., the late President of the Hospital, of the value of £38 10s., is awarded biennially to the Student who shall take the highest place in the 1st Class List in the examinations at the end of the Second Winter Session. It is tenable for two years, provided the holder has worked during his third year to the satisfaction of the Medical School Committee.

THE PEACOCK SCHOLARSHIP.

This Scholarship, founded by the will of the late Dr. THOMAS BEVILL PEACOCK, for many years Physician, and at the time of his death Consulting Physician to St. Thomas's Hospital, is of the same value as the Musgrove Scholarship; is awarded and held upon the same terms; and is given every second year in alternation with that Scholarship.

THE BEANEY SCHOLARSHIP.

This Scholarship, founded by the will of the late Dr. BEANEY, of the value of £50, is awarded biennially, after an examination in Surgery and Surgical Pathology, to a student who shall have completed his fifth but not his seventh year. The examination is held during the Summer Session.

* The Examination Papers of last year may be had on application to the Medical Secretary.

THE SALTERS' COMPANY RESEARCH FELLOWSHIP.

This Fellowship of the annual value of £100 has been established and endowed by the Salters' Company, with a view to the promotion of research in Pharmacology. The Fellowship is awarded to a properly qualified person by the Company on the nomination of the Treasurer of St. Thomas's Hospital and a Committee of Selection. It may be held for a term of three years, the Fellow carrying on his researches at St. Thomas's Hospital and giving annual evidence of the performance of satisfactory work to the Committee of Selection. The Fellow is required to devote his whole time to research and to hold no other office or appointment except by special permission of the Salters' Company, granted on the strong recommendation of the Committee of Selection.

PRIZES.

The following Scholarships, Prizes, and Medals, will be offered for Competition during the year 1899-1900:—

TWO OPEN SCHOLARSHIPS IN NATURAL SCIENCE of the value of £150 and £60 respectively, at the commencement of the 1st year.

THE UNIVERSITY SCHOLARSHIP of the value of £50, at the commencement of the 3rd year.

AT THE END OF FIRST YEAR.

<i>Winter.</i>	1st.	...	The William Tite Scholarship	...	...	£27 10s.
	2nd.	...	College Prize	...	...	£20.
	3rd.	...	Ditto	...	...	£10.
<i>Summer.</i>	1st.	...	College Prize	...	...	£15.
	2nd.	...	Ditto	...	...	£10.

SECOND YEAR.

<i>Winter.</i>	1st.	...	The Peacock Scholarship	...	...	£38 10s.
	2nd.	...	College Prize	...	...	£20.
	3rd.	...	Ditto	...	...	£10.
<i>Summer.</i>	1st.	...	College Prize	...	...	£15.
	2nd.	...	Ditto	£10.

THIRD YEAR.

Second Tenure of the Musgrove Scholarship	£38 10s
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FIFTH YEAR.

Winter. An Examination will be held in the second half of the Fifth Winter Session, for which Prizes will be given.

Students of each year are classed according to their respective merits in the examinations, and those in the *first* class in each year receive Certificates of Honour, and a preference in the selection for Hospital Appointments.

Free Scholarships are given to distinguished Pupils of Merchant Taylors and City of London Schools, and Epsom College.

In addition there are awarded—

THE CHESELDEN MEDAL, *Annually.*

THE MEAD MEDAL, *do.*

THE SOLLY MEDAL AND PRIZE, *Biennially.* (1900.)

THE BEANEY SCHOLARSHIP, *do.* (1900.)

THE SUTTON SAMS MEMORIAL PRIZE, *Biennially* (1900.)

THE GRAINGER TESTIMONIAL PRIZE, *Annually.*

THE TREASURER'S GOLD MEDAL, *do.*

THE BRISTOWE MEDAL, *do.*

THE WAINWRIGHT PRIZE FOR MEDICINE, *do.*

THE HADDEN PRIZE FOR PATHOLOGY.

Intending Competitors, especially those who have spent a part of their curriculum elsewhere, should apply to the Medical Secretary for detailed regulations.

The CHESELDEN MEDAL, founded by the late GEORGE VAUGHAN, Esq., is annually awarded to the Fifth Year's Student who most distinguishes himself in respect of a Special Practical Examination in Surgery and Surgical Anatomy.

The MEAD MEDAL, founded by Mr. and Mrs. NEWMAN SMITH, is awarded annually to a Fifth Year's Student, in respect of a Special Practical Examination in Medicine, Pathology and Hygiene.

The WAINRIGHT PRIZE, £10, is awarded annually to a University Student under certain conditions after an Examination in Medicine, Pathology and Hygiene.

The SOLLY MEDAL, together with a Prize in Money, will be awarded biennially. Those Students are eligible to compete who shall be of from three to six years' standing. The award is made for the best series of Reports of Surgical cases coming under the Student's personal observation in the Wards, not, however, to exceed ten in number.

The BRISTOWE MEDAL will be awarded annually in respect of a special Practical Examination in Pathology and Morbid Anatomy.

The GRAINGER TESTIMONIAL PRIZE, of the value of Fifteen Pounds, is awarded annually for work in Anatomy and Physiology. The conditions of competition for this Prize have recently been altered, and can be learnt from the Medical Secretary.

The SUTTON SAMS MEMORIAL PRIZE, awarded biennially for the best series of Reports of Cases in Obstetric Medicine, including Midwifery and the Diseases of Women.

The TREASURER'S GOLD MEDAL for General Proficiency and Good Conduct, is awarded at the end of the 5th Winter Session to the Student who has passed through his pupilage in St. Thomas's Hospital in the most meritorious manner (printed regulations are posted in the Library).

APPOINTMENTS.*

A RESIDENT ASSISTANT PHYSICIAN and a RESIDENT ASSISTANT SURGEON, at a salary of £100 per annum each, are from time to time appointed. The appointments are annual, but the tenure of office may be renewed for a term not exceeding three years.

TWO HOSPITAL REGISTRARS, at an annual Salary of £100 each, are appointed in each year. They are eligible for annual re-appointment, but may not hold office for more than three years. Preference will be given to Gentlemen who have been distinguished for merit, and have completed their studies in the School. The payment of the Registrars is subject to the presentation of a Report upon the Practice of the Hospital, and to such Report being regarded as satisfactory by the Medical Officers to whom it shall have been referred.

AN OBSTETRIC TUTOR AND REGISTRAR is appointed each year, at an annual salary of £50. He is eligible for annual re-appointment, but may not hold office for more than three years consecutively. The holder of the office takes part in the tutorial instruction of students, under the direction of the Obstetric Physician.

AN ASSISTANT TO THE SUPERINTENDENT OF THE CLINICAL LABORATORY is appointed from time to time.

House Appointments, open to Students who have obtained their diplomas. (*The duties of these offices commence on the first Tuesday in March, June, September, and December.*)

Four HOUSE PHYSICIANS, Two ASSISTANT HOUSE PHYSICIANS, Four HOUSE SURGEONS, and Four ASSISTANT HOUSE SURGEONS, are selected every three months. The Assistant House Physicians and Surgeons are non-resident, but the other Officers are provided with Rooms and Commons in the Hospital, free of expense, and hold office for six months, if recommended for re-election.

* All these Appointments are open to Students without extra payment.

A SENIOR and a JUNIOR OBSTETRIC HOUSE PHYSICIAN are selected every three months. The former is provided with Rooms and Commons in the Hospital, free of expense. The latter is provided with Commons, and must live near the Hospital.

Two OPHTHALMIC HOUSE SURGEONS, Senior and Junior, are appointed for six months, one of whom receives a Salary at the rate of £50 per annum, and the other is provided with Commons. They must live near the Hospital.

CLINICAL ASSISTANTS in the Departments for Diseases of the Throat, Skin, and Ear, and in the Electrical, X Ray, and Physical Exercise Departments, are appointed every three months.

In the Special Departments preference is given to those who have worked in a satisfactory manner therein as Clinical Clerks and Dressers.

Appointments for Un-qualified Students.

CLINICAL CLERKS and DRESSERS to In-patients are selected to the number of at least 100 each year, from amongst the most eligible pupils. The DRESSER on Accident Duty is provided with a Room and Commons in the Hospital. CLINICAL CLERKS and DRESSERS for the Out-patients are also appointed, to the number of at least 80 to 100 each year; applicants are required to have passed the 2nd examination of the Conjoint Board, or an equivalent examination, and to have attended a course of instruction in Elementary Clinical Medicine (p. 25). (*The Duties commence on the first Tuesday in January, April, July, and October.*)

OBSTETRIC CLERKS are appointed, in rotation, from a list of Students who have entered their names for the purpose, have attended Lectures on Midwifery and a course of Elementary Practical Obstetrics, and have passed the "Second Conjoint," or an equivalent Examination. Each Clerk holds office for three weeks, and Special Certificates are awarded to those Gentlemen who have satisfactorily attended Sixty Maternity cases. About 50 Obstetric Clerks are appointed yearly.

ASSISTANTS TO THE TEACHERS OF PRACTICAL AND MANIPULATIVE SURGERY are appointed for the Winter and Summer Sessions.

ASSISTANTS TO THE LECTURER ON MATERIA MEDICA are appointed for the Summer Session.

Students are appointed to act as ASSISTANTS in the CLINICAL LABORATORY and to the DEMONSTRATORS of MORBID HISTOLOGY and of MORBID ANATOMY.

ASSISTANTS IN THE CHEMICAL DEPARTMENT are selected from those who have passed the PREL. SCI. UNIV. LOND. or who are similarly qualified.

ASSISTANTS IN THE PHYSIOLOGICAL LABORATORY are selected from Students who have completed their Second Winter Session.

ANATOMICAL REGISTRARS and PROSECTORS are appointed in the early part of the Winter Session, also ASSISTANTS TO THE LECTURER ON ELEMENTARY BIOLOGY.

REGULATIONS FOR THE EXAMINATION AND CLASSIFICATION OF THE STUDENTS AT THE MEDICAL SCHOOL.

1. In accordance with the Regulations of the Qualifying Bodies, Students must attend the Class Examinations in the subjects for which they have to be certified, and show by their answers to the questions that they have paid proper attention to the Lectures, otherwise the signature to their Schedules may be withheld.

2. There shall be held at least two Examinations in the 1st and 2nd Winter and one in the 1st and 2nd Summer Session in each subject on which attendance is required during that Session, and the marks obtained in these Examinations shall be the basis for the Classification of Students and the Award of Prizes for each Session respectively. Provided that any extra Examination in the course of the Session, in any subject, be not allowed to interfere with the ordinary Lectures in other subjects.

3. The number of marks allotted to each subject in the following Schedule is not to be exceeded in case the number of Examinations held during the Session be more than two, but must be distributed amongst the several Examinations.

4. Students must obtain at least one-third of the total number of marks in each subject, and not less than two-thirds of the total number allotted to all the subjects collectively, to be placed in the 1st Class.

Those who have obtained one-third of the total number of marks allotted to all the subjects collectively are placed in the 2nd Class.

The names of those who do not obtain either a 1st or 2nd Class position are not published, but a General List showing the exact position of each Student at every Examination is kept by the Secretary, from whom any Student can learn his own position, but no Lecturer shall make known to Students the number of marks obtained by any Student in any subject.

5. The Prizes shall be awarded to the Students holding the 1st, 2nd, and 3rd positions in the 1st Class of each Winter Session, and to those holding the 1st and 2nd positions of the 1st Class in each Summer Session.

6. The number of marks allotted to the Examinations for the MEAD and CHESELDEN Medals shall be 600 each.

7. In awarding the TREASURER'S Medal the number of marks obtained at the Sessional Examinations and in the MEAD and CHESELDEN Examinations shall be counted, provided that, as regards the Examination for the Medals, two-thirds of the maximum marks be obtained, but those obtained in the Entrance Scholarship Competition shall not be included.

8. The Authorities reserve the right of withholding any prize, if no competitor of sufficient merit present himself.

9. Attendance and satisfactory performance at the Fifth Year's Examination is compulsory upon all Students who desire to hold a House Appointment, or an appointment as Clinical Assistant in a Special Department.

1st YEAR'S SUBJECTS.

WINTER ...	Anatomy	500
	Practical Anatomy	300
	Physiology	300
	Elementary Biology	300
	Chemistry and Practical	
	Chemistry	600
	Total	2000
SUMMER ...	Chemistry and Practical	
	Chemistry	300
	Practical Pharmacy	200
	Practical Physiology	300
	Total	800

2nd YEAR'S SUBJECTS.

WINTER ...	Anatomy	500
	Practical Anatomy	300
	Physiology	600
	Practical Physiology	200
	Total	1600
SUMMER ...	Midwifery	500
	Practical Surgery	200
	Total	700

5th YEAR'S SUBJECTS.

Medicine.
Surgery (including Ophthalmology).
Midwifery and Diseases of Women.
Pathology.

Pharmacology and Therapeutics.
Forensic Medicine (including Insanity).
Public Health.

Every Student must take up at least three subjects, one of which must be either Medicine or Surgery.

Distribution of Prizes for the Past Sessions.

SUMMER SESSION, 1898.

FIRST YEAR'S STUDENTS.

W. H. HARWOOD-YARRED, <i>Brixton</i>	{ College Prize, £15, and Certificate of Honour.
W. M. STRONG, <i>Camberwell</i>	
J. E. ADAMS, <i>Islington</i>	{ College Prize, £10, and Certificate of Honour.
H. W. SEXTON, <i>Hackney</i>	
	Certificate of Honour.
	Certificate of Honour.

SECOND YEAR'S STUDENT.

A. F. MISKIN, <i>Kennington Road</i>	{ College Prize, £15, and Certificate of Honour.
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FOR REPORTS OF CASES IN OBSTETRIC MEDICINE.

A. BEVAN, <i>Elm Park Gardens</i>	Sutton Sam's Memorial Prize.
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WINTER SESSION, 1898-9.

ENTRANCE SCIENCE SCHOLARSHIPS.

C. M. ROBERTS, <i>Ravenscourt Park</i>	{ First Scholarship, £150, and Certificate of Honour.
C. H. LATHAM, <i>Kidbrook Park Road..</i>	{ Scholarship, £60, and Certificate of Honour.

FIRST YEAR'S STUDENTS.

G. C. ADENEY, <i>Hampstead</i>	{ The Wm. Tite Scholarship, £27 10s., and Certificate of Honour.
C. M. ROBERTS, <i>Ravenscourt Park</i>	{ College Prize, £20, and Certificate of Honour.
C. H. LATHAM, <i>Kidbrook Park Road</i>	{ College Prize, £10, and Certificate of Honour.
J. N. SERGEANT, <i>Brigg, Lincs.</i>	Certificate of Honour.
B. HIGHAM, <i>Camberwell</i>	Certificate of Honour.

SECOND YEAR'S STUDENTS.

C. U. IND, <i>Margate</i>	{ The Musgrove Scholarship, £38 10s., and Certificate of Honour.
W. H. HARWOOD-YARRED, <i>Brixton</i>	{ College Prize, £20, and Certificate of Honour.
J. E. ADAMS, <i>Islington</i>	{ College Prize, £10, and Certificate of Honour.
H. W. SEXTON, <i>Hackney</i>	Certificate of Honour.

THIRD YEAR'S STUDENTS.

C. N. SEARS, <i>Wimbledon Park...</i>	{ College Prize, £20, and 2nd tenure of Peacock Scholarship, and Certificate of Honour.
A. F. MISKIN, <i>Kennington Road</i>	{ College Prize, £15, and Certificate of Honour.

PRACTICAL MEDICINE.

R. J. HORTON-SMITH	The Wainwright Prize.
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SURGERY AND SURGICAL ANATOMY.

H. T. D. ACLAND, <i>Rangitata, New Zealand...</i>	{ The Cheselden Medal, founded by the late GEORGE VAUGHAN, Esq.
A. E. MARTIN, <i>Bristol</i>	Certificate of Honour.
A. W. JONES, <i>Swansea</i>	Certificate of Honour.

PATHOLOGY AND MORBID ANATOMY.

H. D. SINGER, <i>Stoke Newington</i>	The Bristowe Medal.
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FOR GENERAL PROFICIENCY AND GOOD CONDUCT.

J. GAFF, <i>Kennington Road</i>	The Treasurer's Gold Medal.
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CERTIFICATES OF HONOUR.

HOUSE PHYSICIANS.

H. C. HASLAM
R. W. C. PIERCE
J. R. CHARLES
E. F. BUZZARD

G. B. THWAITES
H. D. SINGER
E. A. GATES
A. E. STEVENS

HOUSE SURGEONS.

E. H. COBB	A. H. GREG	J. A. BARNES
A. C. ROBINSON	S. O. BINGHAM	J. E. KILVERT
F. L. A. GREAVES	E. M. CORNER	

ASSISTANT HOUSE SURGEONS.

S. O. BINGHAM	J. E. KILVERT	S. A. LUCAS
E. M. CORNER	H. J. PHILLIPS	H. T. D. ACLAND
J. A. BARNES	P. W. G. SARGENT	

OBSTETRIC HOUSE PHYSICIANS.

<i>Senior</i> —H. T. M. ALFORD	<i>Junior</i> —L. GILBERT
H. F. SHEA	J. F. MCCLEAN
J. F. MCCLEAN	R. H. BELL
R. H. BELL	S. H. BELFRAGE

OPHTHALMIC HOUSE SURGEONS.

J. S. HALL	T. HOBAN
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CLINICAL ASSISTANTS IN THE SPECIAL DEPARTMENTS.

Throat	Skin	Ear	Electrical
A. D. COWBURN	A. E. STEVENS	F. H. ALLFREY	H. N. GOODE
	H. M. SCAPING	W. J. GALT	

CERTIFICATES OF PROFICIENCY.**ANATOMICAL REGISTRARS.**

N. CARPMAEL	R. E. ROBERTS
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PROSECTORS.

J. E. ADAMS	C. U. IND
R. L. BEANE	R. E. H. LEACH
W. H. HARWOOD-YARRED	H. UPCOTT

ASSISTANTS IN THE PHYSIOLOGICAL LABORATORY.

H. J. DE BRENT	R. E. ROBERTS
E. PRALL	H. W. SINCLAIR

ASSISTANTS IN THE PATHOLOGICAL LABORATORY.

H. T. D. ACLAND	H. H. R. CLARKE	C. L. HAWKINS
T. BURFIELD	J. F. CUNNINGHAM	A. E. MARTIN

ASSISTANTS IN THE BIOLOGICAL LABORATORY.

C. H. LATHAM	C. M. ROBERTS	F. R. E. WRIGHT
B. HIGHAM	G. C. ADENEY	

ASSISTANTS IN THE CHEMICAL LABORATORY.

C. H. LATHAM	F. R. E. WRIGHT
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ASSISTANTS TO THE LECTURER ON MATERIA MEDICA.

H. R. BATEMAN	J. F. CUNNINGHAM
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ASSISTANTS TO THE TEACHERS OF PRACTICAL SURGERY.

H. T. D. ACLAND	A. BEVAN	C. L. HAWKINS
H. R. BEALE	A. W. JONES	A. E. MARTIN

The following Distinctions in the University of London have been obtained by Students of St. Thomas's Hospital during the past year :—

HONOURS EXAMINATIONS—UNIVERSITY OF LONDON.

Third Class in Medicine (M.B.), H. D. SINGER.

Second Class in Forensic Medicine (M.B.), L. GILBERT, H. E. HEWITT, H. D. SINGER.

FEES FOR ATTENDANCE ON THE LECTURES AND ON THE PRACTICE OF THE HOSPITAL.

COMPOSITION FEES.

The Composition Fee to Hospital Practice and Lectures may be paid in the following ways :

- 1st. One Hundred and Fifty Pounds on entrance in one sum ;
- 2nd. One Hundred and Fifty-seven Pounds Ten Shillings in instalments ;
 - (a) By two payments, £85 on entrance, and £72 10s. at the beginning of the second year ;
 - (b) By three payments, £75 at the beginning of the first year, £50 at the beginning of the second year, and £32 10s. at the beginning of the third year ;
 - (c) By four payments, £65 at the beginning of the first year, £50 at the beginning of the second year, £30 at the beginning of the third year, and £12 10s. at the beginning of the fourth year.

A reduction is made in the case of Students who have passed in Chemistry and Physics or Elementary Biology before entering the Hospital.

Gentlemen entering at St. Thomas's for Lectures and Hospital Practice of the second and subsequent years pay £130 on entrance, or three instalments of £52 10s., £42, and £42 (see page 18). Students entering for Lectures and Hospital Practice of third and subsequent years (see page 18) pay a composition fee of £80, or £52 10s. on entrance, and £31 10s. one year subsequently.

[N.B.—It should be understood that although the Composition Fees are intended to cover unlimited attendance on Lectures and Hospital Practice, yet if a student fail to pass the several professional examinations within periods deemed reasonable by the School authorities, he may be required to pay additional fees for attendance at practical Courses and Tutorial Classes, or his rights as a Student may be suspended or determined at any time by the School Committee, with the approval of the Treasurer.]

Legally qualified Medical Men (British, Colonial, or Foreign), are admitted to the Hospital practice, Clinical Lectures, and Museums of the following Hospitals : Charing Cross, Guy's, King's College, Middlesex, St. George's, St. Mary's, St. Thomas's, University College, and Westminster.

Cards are issued at the following rates: For 3 months, 7 guineas ; for 6 months, 10 guineas ; and for any longer period at the further rate of 5 guineas for each additional 6 months.

The cards do not entitle the holder to certificates of attendance either on Lectures or in Hospital Practice for the purpose of any examination.

NOTE.—Cheques may be made payable to the Medical Secretary, and crossed "London and County Bank, Lambeth."

The Fee for attendance on the *general* subjects required of Students in Dental Surgery, is for the two years, £65, or by instalments, £55 for the first year, and £15 for the second year. If certificates for *Dental* practice are also required, the special fee for that subject (see below) has to be paid.

The Courses may be attended separately on the following terms, which entitle to Certificates for such Attendances.

For the Medical and Surgical Practice, including Clinical Lectures and the Special Departments.

Three months	£21.	Twelve months... ..	£36 15s.
Six months	£26 5s.	Unlimited	£73 10s.

The Practice of the Medical or Surgical Wards, or any one of the Special Departments, may be attended separately.

	<i>Medical or Surgical.</i>	<i>Each Special Department.</i>
Three months	£15 15s.	£5 5s.
Six months	£21.	£10 10s.
Twelve months	£26 5s.	£15 15s.

Lectures and Demonstrations.

Anatomy, Physiology	each	£10 10s.
Practical Anatomy (twelve months), Practical Physiology, including Histology	each	£10 10s.
Medicine, Surgery, Chemistry	„	£7 7s.
Midwifery	„	£6 6s.
Pharmacology and Therapeutics, Physics, Forensic Medicine	each	£5 5s.
Pathology, including Pathological Histology	„	£8 8s.
Diseases of Women, Public Health, Insanity, Diseases of the Eye	each	£3 3s.
Practical Medicine, Practical Obstetrics, Laryngology	„	£3 3s.
Practical Surgery, Practical Chemistry, Elementary Biology	„	£6 6s.
Demonstrations in Post-Mortem room (twelve months)	„	£10 10s.

NOTE.—A small charge for materials is made for all Practical Courses taken separately.

SPECIAL COURSES (not included in the Composition Fee) and EXTRA EXPENSES.

Comparative Anatomy	£2 2s.
Botany	£3 3s.
Operative Surgery	£5 5s.
Ditto of Eye	£2 2s.
Advanced Anatomy, Advanced Physiology	each £6 6s.
Public Health—Six months' Laboratory Instruction for the Diploma	£21.
Practical Bacteriology	£1 1s.
Vaccination	£1 1s.
Practical Instruction in Pharmacy	£3 3s.
Attendance at a Fever Hospital of the Metropolitan Asylums Board	£3 3s.
Attendance at a recognised Lunatic Asylum	£3 3s.

Students who pay a Composition Fee are now supplied with chemicals and materials for **one course** of Practical Chemistry, Practical Physiology, and Elementary Biology without extra charge; but there are certain instruments and materials required during the course of study, as follows, viz. :

Those attending Elementary Biology, Practical Physiology and Physiological Demonstrations must provide themselves with Microscopes. Dissecting Instruments are required for the Elementary Biology Course.

Students Dissecting pay for the “parts” they dissect at fixed rates, which are notified in the Library.

Each Clinical Clerk must provide himself with a Stethoscope and Registering Clinical Thermometer. Each Dresser is required to have a Registering Clinical Thermometer, a Pocket Case of Instruments, and a Case of Silver or Plated Catheters.

UNIVERSITY OF LONDON.

Preliminary Scientific and Intermediate M.B. Classes.

PRELIMINARY SCIENTIFIC EXAMINATION.

Special instruction in the subjects required for this Examination is given in the form of (a) Lectures and (b) Classes, from October to July.

		Mon.	Tues.	Wed.	Thü.	Fri.	Sat.
A. W. BENNETT, M.A.	Lectures (Summer)	—	10.0	10.0	—	—	—
	Classes (Winter & Summer)	—	—	11.0	—	—	—
W. R. DUNSTAN, M.A., F.R.S.	Lectures (Winter)	—	—	12.0	—	12.0	—
	Classes (Summer)	—	—	—	12.0	—	—
	Practical (Winter)	—	2.0	—	—	—	1030 fm Jan
	„ (Summer)	11.0	2.0	—	—	11.0	11.0
Laboratory open daily							
H. R. LESUEUR, B.Sc.	Lectures and Practical Work	2.0 fm Jan	—	9.30	—	—	1030 Oct. Nov. Dec.
	Winter Summer	—	—	9.0	9.0	—	—
F. G. PARSONS, F.R.C.S.	Classes (Winter)	—	—	—	1030	—	—
	„ (Summer)	9.30	—	—	1030	—	—
Laboratory open daily							

N.B.—A Microscope and simple Dissecting Apparatus must be provided by each Member of the Class, and Two Guineas are charged for materials.

Fee, inclusive of Practical Chemistry *Sixteen Guineas.*

Fee for any single subject *Five Guineas.*

Subsequent Courses, half Fee, if recommended by the respective Teachers.

In the Practical Classes of Botany and Zoology, each Student has the opportunity of dissecting the chief types.

INTERMEDIATE EXAMINATION IN MEDICINE.

		Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
F. G. PARSONS, F.R.C.S., and H. B. ROBINSON, M.S.	Jan. to Mar.	—	9.30	—	9.30	—	—
	May to July	—	Four	times a	week.	—	—
J. B. LEATHES, M.B., B.Ch. Oxon.	Oct. to Mar.	2—4	—	2—4	—	—	—
	May to July	—	—	—	3.0	—	—
W. R. DUNSTAN, M.A., F.R.S.	Jan. to Mar.	—	2.0	—	2.0 Practical work	2.0	—
	May to July	—	2.0	3.0 Practical work	2.0 Practical work	2.0 Revision Class	—
E. WHITE, B.Sc.	May to July	—	—	2.0	—	—	—

Fee to Students of the Hospital, inclusive of

Organic Analysis and Chemicals *Nine Guineas.*

To others ditto *Twelve Guineas.*

Subsequent Courses, half Fee, if recommended by the respective Teachers.

* Students are strongly advised to attend the lectures in this subject immediately they have passed the Preliminary Scientific Examination, and the lectures, revision classes and practical work in the next year.

NOTE.—Private Classes are held for the Final M.B. Examination.

St. Thomas's Hospital.

MEDICAL AND PHYSICAL SOCIETY.

President, 1899—1900.
DR. H. G. TURNEY.

Vice-Presidents.

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MR. ANDERSON.
MR. BATTLE.

DR. CULLINGWORTH.
MR. LAWFORD.
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MR. A. MAVROGORDATO.
MR. G. A. C. SHIPMAN.

This Society was originated in the early part of the present century by students of the Hospital, and has for its object the reading and discussion of papers on Medicine, Surgery, and subjects of General Interest, the narration of cases, and the exhibition of specimens of Physiological and Pathological interest. The Meetings are held in the Students' Club on alternate Thursdays at 8.30 p.m., and terminate not later than 10 p.m.

Further information can be obtained of the Hon. Secretaries.

ST. THOMAS'S HOSPITAL REPORTS.

VOL. XXVII., NEW SERIES,

EDITED BY

H. W. G. MACKENZIE, M.A., M.D., Cantab, and
G. H. MAKINS, F.R.C.S.

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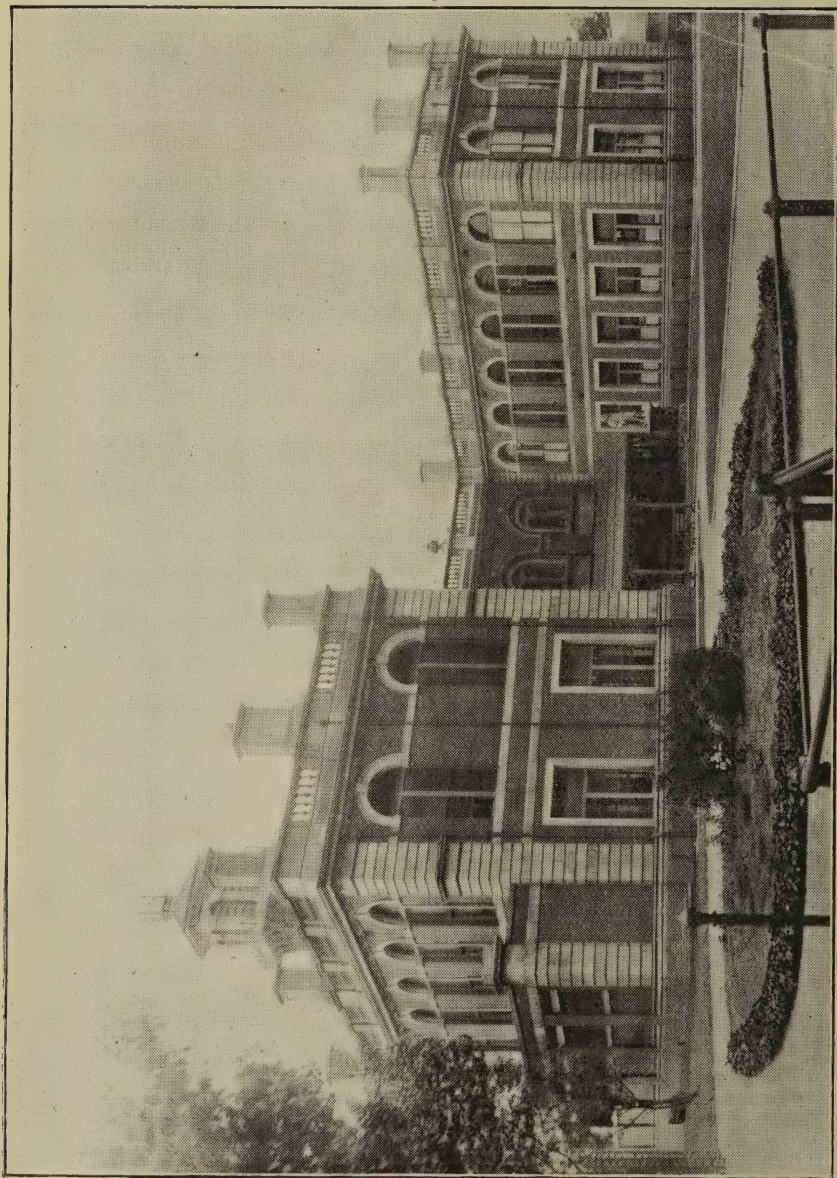
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MEDICAL SCHOOL, NORTH VIEW.



# OCTOBER, 1899.

|    |    |                                                                                                |
|----|----|------------------------------------------------------------------------------------------------|
| 1  | S  | Eighteenth Sunday after Trinity.                                                               |
| 2  | M  | Last Day for Entry Univ. Lond. M.B. Exam.                                                      |
| 3  | TU | { Distribution of Prizes, 3 p.m. Annual Dinner. Clinical<br>Clerks and Dressers commence duty. |
| 4  | W  |                                                                                                |
| 5  | TH | Entry for M.D. Exam. in State Medicine Univ. Lond. closes.                                     |
| 6  | F  | Meeting of Library Committee.                                                                  |
| 7  | S  |                                                                                                |
| 8  | S  | Nineteenth Sunday after Trinity.                                                               |
| 9  | M  |                                                                                                |
| 10 | TU |                                                                                                |
| 11 | W  |                                                                                                |
| 12 | TH |                                                                                                |
| 13 | F  |                                                                                                |
| 14 | S  |                                                                                                |
| 15 | S  | Twentieth Sunday after Trinity.                                                                |
| 16 | M  |                                                                                                |
| 17 | TU |                                                                                                |
| 18 | W  | St. Luke.                                                                                      |
| 19 | TH |                                                                                                |
| 20 | F  |                                                                                                |
| 21 | S  |                                                                                                |
| 22 | S  | Twenty-first Sunday after Trinity.                                                             |
| 23 | M  | Univ. Lond. B.Sc. Exam.                                                                        |
| 24 | TU |                                                                                                |
| 25 | W  |                                                                                                |
| 26 | TH |                                                                                                |
| 27 | F  |                                                                                                |
| 28 | S  | St. Simon and St. Jude.                                                                        |
| 29 | S  | Twenty-second Sunday after Trinity.                                                            |
| 30 | M  | Univ. Lond. M.B. Exam.                                                                         |
| 31 | TU |                                                                                                |

*The Registration and Museum Committees meet during this month.*

*The Primary Examination of the Society of Apothecaries is held Quarterly, in the months of October, January, April, and July. The Final is held monthly; the Surgical part commences on the second Wednesday, and the Medical on the Monday following.*

*First, Second, and Third Examinations of the Examining Board in England are held this month.*

# NOVEMBER, 1899.

|    |    |                                                                                             |
|----|----|---------------------------------------------------------------------------------------------|
|    |    | <i>Notice</i> —30th, last day for applications for Medical and<br>[Surgical Registrarships. |
| 1  | W  | All Saints. Last day for applications for House Offices, &c.*                               |
| 2  | TH | All Souls.                                                                                  |
| 3  | F  |                                                                                             |
| 4  | S  |                                                                                             |
| 5  | S  | Twenty-third Sunday after Trinity.                                                          |
| 6  | M  | Last Day for Entry for M.D. and M.S. Exams. Univ. Lond.                                     |
| 7  | TU |                                                                                             |
| 8  | W  | Meeting to appoint House Officers, &c.                                                      |
| 9  | TH | Prince of Wales born, 1841.                                                                 |
| 10 | F  |                                                                                             |
| 11 | S  |                                                                                             |
| 12 | S  | Twenty-fourth Sunday after Trinity.                                                         |
| 13 | M  |                                                                                             |
| 14 | TU |                                                                                             |
| 15 | W  |                                                                                             |
| 16 | TH |                                                                                             |
| 17 | F  |                                                                                             |
| 18 | S  |                                                                                             |
| 19 | S  | Twenty-fifth Sunday after Trinity.                                                          |
| 20 | M  |                                                                                             |
| 21 | TU | Univ. Lond. M.B. Pass List published. Last day for<br>[Entry for B.S. Exam., Univ. Lond.    |
| 22 | W  | Univ. Lond. M.B. Honours Exam.                                                              |
| 23 | TH |                                                                                             |
| 24 | F  |                                                                                             |
| 25 | S  |                                                                                             |
| 26 | S  | Twenty-sixth Sunday after Trinity.                                                          |
| 27 | M  |                                                                                             |
| 28 | TU |                                                                                             |
| 29 | W  |                                                                                             |
| 30 | TH | St. Andrew. Last day for applications for Medical and<br>[Surgical Registrarships.          |

*Examinations for the Fellowship of the Royal College of Surgeons of England held this month.*

*\* Applications for these appointments to be made on forms to be obtained at the Medical Secretary's Office.*

# DECEMBER, 1899.

|    |    |                                                              |
|----|----|--------------------------------------------------------------|
| 1  | F  | Last day for Entry for Matriculation Univ. Lond.             |
| 2  | S  |                                                              |
| 3  | S  | Advent Sunday.                                               |
| 4  | M  | Univ. Lond. M.D. and M.S. Exam. [duty.                       |
| 5  | Tu | Univ. Lond. B.S. Exam. House Officers, &c., commence         |
| 6  | W  | Last day for applications for Clinical Clerkships and        |
| 7  | Th | [Dresserships.                                               |
| 8  | F  |                                                              |
| 9  | S  |                                                              |
| 10 | S  | Second Sunday in Advent.                                     |
| 11 | M  |                                                              |
| 12 | Tu |                                                              |
| 13 | W  | Meeting to appoint Clinical Clerks and Dressers.             |
| 14 | Th |                                                              |
| 15 | F  |                                                              |
| 16 | S  |                                                              |
| 17 | S  | Third Sunday in Advent.                                      |
| 18 | M  | Univ. Lond. B.Sc. Pass List published.                       |
| 19 | Tu |                                                              |
| 20 | W  | Univ. Lond. M.D. and M.S. Lists published.                   |
| 21 | Th | St. Thomas.                                                  |
| 22 | F  | Last day for Entry for Prel. Sci. Exam. Univ. Lond. Last day |
| 23 | S  | [for Entry for Int. Med. Exam. Univ. Lond.                   |
| 24 | S  | Fourth Sunday in Advent.                                     |
| 25 | M  | CHRISTMAS DAY.                                               |
| 26 | Tu | Saint Stephen.                                               |
| 27 | W  | Saint John, Evang.                                           |
| 28 | Th | Holy Innocents.                                              |
| 29 | F  |                                                              |
| 30 | S  |                                                              |
| 31 | S  | First Sunday after Christmas.                                |

*University of Cambridge First, Second, and Third M.B. Examinations are held this month.*

# JANUARY, 1900.

|    |    |                                                          |
|----|----|----------------------------------------------------------|
| 1  | M  |                                                          |
| 2  | TU | Clinical Clerks and Dressers commence duty.              |
| 3  | W  |                                                          |
| 4  | TH |                                                          |
| 5  | F  | Meeting of Library Committee.                            |
| 6  | S  | Epiphany.                                                |
| 7  | S  | First Sunday after Epiphany.                             |
| 8  | M  | Univ. Lond. Matriculation Examination.                   |
| 9  | TU |                                                          |
| 10 | W  |                                                          |
| 11 | TH |                                                          |
| 12 | F  |                                                          |
| 13 | S  |                                                          |
| 14 | S  | Second Sunday after Epiphany.                            |
| 15 | M  | Univ. Lond. Prelim. Scientific (M.B.) Exam. and Intermd. |
| 16 | TU | [Exam. in Medicine.                                      |
| 17 | W  |                                                          |
| 18 | TH |                                                          |
| 19 | F  |                                                          |
| 20 | S  |                                                          |
| 21 | S  | Third Sunday after Epiphany.                             |
| 22 | M  |                                                          |
| 23 | TU |                                                          |
| 24 | W  |                                                          |
| 25 | TH | Conversion of St. Paul.                                  |
| 26 | F  |                                                          |
| 27 | S  |                                                          |
| 28 | S  | Fourth Sunday after Epiphany.                            |
| 29 | M  |                                                          |
| 30 | TU |                                                          |
| 31 | W  |                                                          |

*First, Second, and Third Examinations of the Examining Board in England are held this month.*

*Examinations for Diploma in Public Health of the Royal Colleges of Physicians and Surgeons held this month.*

*The Registration and Museum Committees meet during this month.*

# FEBRUARY, 1900.

|    |    |                                                                                                       |
|----|----|-------------------------------------------------------------------------------------------------------|
| 1  | TH |                                                                                                       |
| 2  | F  |                                                                                                       |
| 3  | S  |                                                                                                       |
| 4  | S  | Fifth Sunday after Epiphany.                                                                          |
| 5  | M  | Univ. Lond. Int. Med. Pass List published.                                                            |
| 6  | TU |                                                                                                       |
| 7  | W  | Last day for applications for House Offices, &c.* Univ.<br>[Lond. Prel. Sci. (M. B.) List published.] |
| 8  | TH |                                                                                                       |
| 9  | F  |                                                                                                       |
| 10 | S  | Queen Victoria married, 1840.                                                                         |
| 11 | S  | Septuagesima Sunday.                                                                                  |
| 12 | M  |                                                                                                       |
| 13 | TU |                                                                                                       |
| 14 | W  | Meeting to appoint House Officers, &c. Univ. Lond.                                                    |
| 15 | TH | [Matric. Pass List published.]                                                                        |
| 16 | F  |                                                                                                       |
| 17 | S  |                                                                                                       |
| 18 | S  | Sexagesima Sunday.                                                                                    |
| 19 | M  |                                                                                                       |
| 20 | TU |                                                                                                       |
| 21 | W  |                                                                                                       |
| 22 | TH |                                                                                                       |
| 23 | F  |                                                                                                       |
| 24 | S  | St. Matthias.                                                                                         |
| 25 | S  | Quinquagesima Sunday.                                                                                 |
| 26 | M  |                                                                                                       |
| 27 | TU |                                                                                                       |
| 28 | W  | Ash Wednesday.                                                                                        |

\* Applications for these appointments to be made on forms to be obtained at the Medical Secretary's Office.



# MARCH, 1900.

|    |    |                                                                                  |
|----|----|----------------------------------------------------------------------------------|
| 1  | TH |                                                                                  |
| 2  | F  |                                                                                  |
| 3  | S  |                                                                                  |
| 4  | S  | First Sunday in Lent.                                                            |
| 5  | M  |                                                                                  |
| 6  | TU | House Officers, &c., commence duty.                                              |
| 7  | W  | Last day for applications for Clinical Clerkships and                            |
| 8  | TH | [Dresserships.]                                                                  |
| 9  | F  |                                                                                  |
| 10 | S  | Prince of Wales married, 1863.                                                   |
| 11 | S  | Second Sunday in Lent.                                                           |
| 12 | M  |                                                                                  |
| 13 | TU |                                                                                  |
| 14 | W  | Meeting to appoint Clinical Clerks and Dressers.                                 |
| 15 | TH |                                                                                  |
| 16 | F  |                                                                                  |
| 17 | S  |                                                                                  |
| 18 | S  | Third Sunday in Lent.                                                            |
| 19 | M  |                                                                                  |
| 20 | TU |                                                                                  |
| 21 | W  |                                                                                  |
| 22 | TH |                                                                                  |
| 23 | F  |                                                                                  |
| 24 | S  |                                                                                  |
| 25 | S  | Fourth Sunday in Lent. LADY DAY.                                                 |
| 26 | M  |                                                                                  |
| 27 | TU |                                                                                  |
| 28 | W  |                                                                                  |
| 29 | TH |                                                                                  |
| 30 | F  |                                                                                  |
| 31 | S  | Last day for Reports for Solly Medal. Registrar's Report for<br>[last year due.] |

# APRIL, 1900.

|    |    |                                               |
|----|----|-----------------------------------------------|
| 1  | S  | Fifth Sunday in Lent.                         |
| 2  | M  |                                               |
| 3  | Tu |                                               |
| 4  | W  |                                               |
| 5  | Th |                                               |
| 6  | F  |                                               |
| 7  | S  | Annunciation.                                 |
| 8  | S  | Palm Sunday.                                  |
| 9  | M  | Last day for Entry for M.B. Exam. Univ. Lond. |
| 10 | Tu | Clinical Clerks and Dressers commence duty.   |
| 11 | W  |                                               |
| 12 | Th |                                               |
| 13 | F  | Good Friday.                                  |
| 14 | S  |                                               |
| 15 | S  | Easter Day.                                   |
| 16 | M  | Bank Holiday.                                 |
| 17 | Tu |                                               |
| 18 | W  |                                               |
| 19 | Th |                                               |
| 20 | F  |                                               |
| 21 | S  |                                               |
| 22 | S  | First Sunday after Easter. Low Sunday.        |
| 23 | M  |                                               |
| 24 | Tu |                                               |
| 25 | W  | St. Mark.                                     |
| 26 | Th |                                               |
| 27 | F  |                                               |
| 28 | S  |                                               |
| 29 | S  | Second Sunday after Easter.                   |
| 30 | M  |                                               |

*Univ. Camb. Third M.B. and First, Second, and Third Examinations of the Examining Board in England are held this month.*

*The Examinations for the Mead and Cheselden Medals take place this month.*

*The Annual Inspection of the Museum and meeting of Museum Committee take place during this month.*

*The Registration Committee meets during this month.*

# MAY, 1900.

|    |    |                                                           |
|----|----|-----------------------------------------------------------|
|    |    | [Univ. Lond.                                              |
| 1  | TU | St. Philip and St. James. Last day for Entry for Matric.  |
| 2  | W  | Last day for application for House Offices, &c.*          |
| 3  | TH |                                                           |
| 4  | F  |                                                           |
| 5  | S  |                                                           |
| 6  | S  | Third Sunday after Easter.                                |
| 7  | M  | Univ. Lond. M.B. Exam.                                    |
| 8  | TU |                                                           |
| 9  | W  | Meeting to appoint House Officers, &c.                    |
| 10 | TH |                                                           |
| 11 | F  | First Stone of St. Thomas's New Hospital laid by H.M. the |
| 12 | S  | [Queen, 1868.                                             |
| 13 | S  | Fourth Sunday after Easter.                               |
| 14 | M  |                                                           |
| 15 | TU |                                                           |
| 16 | W  |                                                           |
| 17 | TH |                                                           |
| 18 | F  |                                                           |
| 19 | S  |                                                           |
| 20 | S  | Fifth Sunday after Easter. Rogation Sunday.               |
| 21 | M  |                                                           |
| 22 | TU |                                                           |
| 23 | W  |                                                           |
| 24 | TH | Queen Victoria born, 1819. Ascension Day. Holy            |
| 25 | F  | [Thursday.                                                |
| 26 | S  |                                                           |
| 27 | S  | Sunday after Ascension Day.                               |
| 28 | M  | Last day for Entry for Int. Med. Exam. Univ. Lond.        |
| 29 | TU | Univ. Lond. M.B. Pass List published.                     |
| 30 | W  |                                                           |
| 31 | TH |                                                           |

*Examinations for the Fellowship of the Royal College of Surgeons of England held this month.*

*\* Applications for these appointments to be made on forms to be obtained at the Medical Secretary's Office.*

# JUNE, 1900.

|    |    |                                                            |
|----|----|------------------------------------------------------------|
| 1  | F  | Last day for Entry for Prel. Sci. (M.B.) Exam. Univ. Lond. |
| 2  | S  |                                                            |
| 3  | S  | Whit Sunday.                                               |
| 4  | M  | Bank Holiday. No Lectures.                                 |
| 5  | TU | House Officers, &c., commence duty.                        |
| 6  | W  | Last day for applications for Clinical Clerkships and      |
| 7  | TH | [Dresserships.                                             |
| 8  | F  |                                                            |
| 9  | S  | New Buildings of Medical School opened by H.R.H. the       |
|    |    | [Duke of Connaught, K.G., 1894.                            |
| 10 | S  | Trinity Sunday.                                            |
| 11 | M  | St. Barnabas. Univ. Lond. Matric. Exam.                    |
| 12 | TU |                                                            |
| 13 | W  | Meeting to appoint Clinical Clerks and Dressers.           |
| 14 | TH |                                                            |
| 15 | F  |                                                            |
| 16 | S  |                                                            |
| 17 | S  | First Sunday after Trinity.                                |
| 18 | M  |                                                            |
| 19 | TU |                                                            |
| 20 | W  | Queen's Accession.                                         |
| 21 | TH | New St. Thomas's Hospital opened by H. M. the Queen,       |
| 22 | F  | [1871.                                                     |
| 23 | S  |                                                            |
| 24 | S  | Second Sunday after Trinity. St. John Baptist.             |
| 25 | M  | [Midsummer Day.                                            |
| 26 | TU |                                                            |
| 27 | W  |                                                            |
| 28 | TH | Queen Victoria crowned, 1838.                              |
| 29 | F  | St. Peter.                                                 |
| 30 | S  |                                                            |

*The Harveian Oration is delivered at the Royal College of Physicians annually in the month of June.*

*Doctor of Science Examination at London University takes place within the first 21 days of June.*

*Univ. Camb. First and Second M.B. Examinations are held within the first 14 days of June.*

*Examination for the Beaney Scholarship held this month.*

# JULY, 1900.

|    |    |                                                        |
|----|----|--------------------------------------------------------|
| 1  | §  | Third Sunday after Trinity.                            |
| 2  | M  | Univ. Lond. Int. Med. Exam.                            |
| 3  | Tu | Clinical Clerks and Dressers commence duty.            |
| 4  | W  | Last day for applications for House Offices. &c., for  |
| 5  | Th | [September.*                                           |
| 6  | F  | Meeting of Library Committee.                          |
| 7  | S  |                                                        |
| 8  | §  | Fourth Sunday after Trinity.                           |
| 9  | M  | Univ. Lond. Prelim. Scientific (M.B.) Exam.            |
| 10 | Tu |                                                        |
| 11 | W  | Meeting to appoint House Officers, &c., for September. |
| 12 | Th |                                                        |
| 13 | F  |                                                        |
| 14 | S  |                                                        |
| 15 | §  | Fifth Sunday after Trinity.                            |
| 16 | M  |                                                        |
| 17 | Tu |                                                        |
| 18 | W  | Univ. Lond. Matric. List published.                    |
| 19 | Th |                                                        |
| 20 | F  |                                                        |
| 21 | S  |                                                        |
| 22 | §  | Sixth Sunday after Trinity.                            |
| 23 | M  | Univ. Lond. Int. Med. Pass List published.             |
| 24 | Tu |                                                        |
| 25 | W  | St. James.                                             |
| 26 | Th |                                                        |
| 27 | F  |                                                        |
| 28 | S  |                                                        |
| 29 | §  | Seventh Sunday after Trinity.                          |
| 30 | M  |                                                        |
| 31 | Tu |                                                        |

*First, Second, and Third Examinations of the Examining Board in England are held this month.*

*Examinations for Diploma in Public Health of the Royal Colleges of Physicians and Surgeons held this month.*

*The Registration and Museum Committees meet during this month.*

*\* Applications for these appointments to be made on forms to be obtained at the Medical Secretary's Office.*



# AUGUST, 1900.

|    |    |                                               |
|----|----|-----------------------------------------------|
| 1  | W  |                                               |
| 2  | TH |                                               |
| 3  | F  |                                               |
| 4  | S  |                                               |
| 5  | S  | Eighth Sunday after Trinity.                  |
| 6  | M  | Bank Holiday.                                 |
| 7  | TU |                                               |
| 8  | W  | Univ. Lond. Prelim. Sci. Pass List published. |
| 9  | TH |                                               |
| 10 | F  |                                               |
| 11 | S  |                                               |
| 12 | S  | Ninth Sunday after Trinity.                   |
| 13 | M  |                                               |
| 14 | TU |                                               |
| 15 | W  |                                               |
| 16 | TH |                                               |
| 17 | F  |                                               |
| 18 | S  |                                               |
| 19 | S  | Tenth Sunday after Trinity.                   |
| 20 | M  |                                               |
| 21 | TU |                                               |
| 22 | W  |                                               |
| 23 | TH |                                               |
| 24 | F  | St. Bartholomew.                              |
| 25 | S  |                                               |
| 26 | S  | Eleventh Sunday after Trinity.                |
| 27 | M  |                                               |
| 28 | TU |                                               |
| 29 | W  |                                               |
| 30 | TH |                                               |
| 31 | F  |                                               |

# SEPTEMBER, 1900.

|    |    |                                                        |
|----|----|--------------------------------------------------------|
| 1  | S  |                                                        |
| 2  | S  | Twelfth Sunday after Trinity.                          |
| 3  | M  |                                                        |
| 4  | Tu | House Officers, &c., commence duty.                    |
| 5  | W  | Last day for applications for Clinical Clerkships and  |
| 6  | Th | [Dresserships.]                                        |
| 7  | F  |                                                        |
| 8  | S  |                                                        |
| 9  | S  | Thirteenth Sunday after Trinity.                       |
| 10 | M  |                                                        |
| 11 | Tu |                                                        |
| 12 | W  | Meeting to appoint Clinical Clerks and Dressers.       |
| 13 | Th |                                                        |
| 14 | F  |                                                        |
| 15 | S  |                                                        |
| 16 | S  | Fourteenth Sunday after Trinity.                       |
| 17 | M  |                                                        |
| 18 | Tu |                                                        |
| 19 | W  |                                                        |
| 20 | Th |                                                        |
| 21 | F  | St. Matthew.                                           |
| 22 | S  |                                                        |
| 23 | S  | Fifteenth Sunday after Trinity.                        |
| 24 | M  | Last day for Entry for B.Sc. Exam., Univ. Lond.        |
| 25 | Tu |                                                        |
| 26 | W  |                                                        |
| 27 | Th |                                                        |
| 28 | F  |                                                        |
| 29 | S  | Michaelmas Day. Last day for Essay for Grainger Prize. |
| 30 | S  | Sixteenth Sunday after Trinity.                        |

*The Hospital Entrance Scholarships Examination takes place during the last week of this month.*

# OCTOBER, 1900.

|    |    |                                                         |
|----|----|---------------------------------------------------------|
| 1  | M  | Last day for Entry Univ. Lond. M.B. Exam.               |
| 2  | TU | Clinical Clerks and Dressers commence duty.             |
| 3  | W  |                                                         |
| 4  | TH |                                                         |
| 5  | F  | Meeting of Library Committee.                           |
| 6  | S  |                                                         |
| 7  | S  | Seventeenth Sunday after Trinity.                       |
| 8  | M  |                                                         |
| 9  | TU |                                                         |
| 10 | W  |                                                         |
| 11 | TH |                                                         |
| 12 | F  |                                                         |
| 13 | S  |                                                         |
| 14 | S  | Eighteenth Sunday after Trinity.                        |
| 15 | M  |                                                         |
| 16 | TU |                                                         |
| 17 | W  |                                                         |
| 18 | TH | St. Luke.                                               |
| 19 | F  |                                                         |
| 20 | S  |                                                         |
| 21 | S  | Nineteenth Sunday after Trinity.                        |
| 22 | M  | Univ. Lond. B.Sc. Exam.                                 |
| 23 | TU |                                                         |
| 24 | W  |                                                         |
| 25 | TH |                                                         |
| 26 | F  |                                                         |
| 27 | S  |                                                         |
| 28 | S  | Twentieth Sunday after Trinity. St. Simon and St. Jude. |
| 29 | M  | Univ. Lond. M.B. Exam.                                  |
| 30 | TU |                                                         |
| 31 | W  |                                                         |

*The Registration and Museum Committees meet during this month.*

*The Primary Examination of the Society of Apothecaries is held Quarterly, in the months of October, January, April, and July. The Final is held monthly; the Surgical part commences on the second Wednesday, and the Medical on the Monday following.*

*First, Second, and Third Examinations of the Examining Board in England are held this month.*

# HOLDERS OF APPOINTMENTS IN ST. THOMAS'S HOSPITAL SINCE 1871.

## RESIDENT ASSISTANT PHYSICIANS.

|                      |                          |
|----------------------|--------------------------|
| 1871. G. H. EVANS    | 1885. H. W. G. MACKENZIE |
| 1874. F. C. TURNER   | 1888. H. P. HAWKINS      |
| 1876. S. J. SHARKEY  | 1891. H. G. TURNEY       |
| 1880. G. GULLIVER    | 1894. S. G. TOLLER       |
| 1882. C. E. SHEPPARD | 1897. C. R. BOX          |
| 1883. R. PERCY SMITH |                          |

## RESIDENT ASSISTANT SURGEONS.

|                       |                      |
|-----------------------|----------------------|
| 1871. W. W. WAGSTAFFE | 1886. W. H. BATTLE   |
| 1874. A. O. MACKELLAR | 1888. H. B. ROBINSON |
| 1876. H. H. CLUTTON   | 1891. E. C. STABB    |
| 1880. B. PITTS        | 1894. F. C. ABBOTT   |
| 1883. G. H. MAKINS    | 1897. C. S. WALLACE  |

## MEDICAL REGISTRARS.

|                        |                          |
|------------------------|--------------------------|
| 1871. S. E. SOLLY      | 1880. G. GULLIVER        |
| 1872. F. POLLARD       | 1882. C. E. SHEPPARD     |
| 1873. W. S. GREENFIELD | 1883. W. B. HADDEN       |
| 1875. H. W. VERDON     | 1888. H. W. G. MACKENZIE |
| 1876. T. C. CHARLES    | 1893. S. G. TOLLER       |
| 1877. E. S. NORRIS     | 1894. C. R. BOX          |
| 1878. T. C. CHARLES    | 1897. A. E. RUSSELL      |
| 1879. W. B. HADDEN     |                          |

## SURGICAL REGISTRARS.

|                       |                      |
|-----------------------|----------------------|
| 1871. W. ANDERSON     | 1886. G. H. MAKINS   |
| 1872. C. E. SAUNDERS  | 1887. C. A. BALLANCE |
| 1873. C. CREIGHTON    | 1888. E. SOLLY       |
| 1874. S. OSBORN       | 1891. E. C. STABB    |
| 1876. { H. H. CLUTTON | 1892. F. C. ABBOTT   |
| { C. H. NEWBY         | 1894. C. S. WALLACE  |
| 1878. H. P. POTTER    | 1897. E. O. THURSTON |
| 1881. W. H. BATTLE    | 1899. H. J. MARRIAGE |

## OBSTETRIC REGISTRARS.

|                       |                   |
|-----------------------|-------------------|
| 1893. W. W. H. TATE   | 1897. A. F. STABB |
| 1898. J. S. FAIRBAIRN |                   |

## HOUSE PHYSICIANS.

|                 |                            |
|-----------------|----------------------------|
| 1871-2. E. COX  | 1873-4. E. WELCHMAN        |
| S. OSBORN       | H. B. DONKIN               |
| J. S. SLATER    | T. HIGHTON                 |
| 1872-3. B. ADDY | C. M. TAYLOR               |
| A. H. LAVER     | H. S. BENNETT              |
| L. WILLIAMS     | 1874-5. A. S. L. NEWINGTON |
| W. GARTON       | J. W. CLARKSON             |
| R. ZIMMERMAN    | W. S. MAVOR                |
|                 | A. LINGARD                 |

HOUSE PHYSICIANS—*continued.*

|          |                                                                                                                                   |          |                                                                                                                                                                |
|----------|-----------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1875-6.  | C. H. NEWBY<br>G. F. ROSSITER<br>W. EDMUNDS<br>H. P. POTTER<br>S. W. J. JOSEPH                                                    | 1886-7.  | A. E. GODFREY } (Non-<br>A. J. H. MONTAGUE } res.)                                                                                                             |
| 1876-7.  | T. TWINING<br>J. F. NICHOLSON<br>J. R. LEESON<br>W. H. PAGE.                                                                      | 1887-8.  | H. P. HAWKINS<br>H. J. MACEVOY<br>W. W. ORD<br>E. HOBHOUSE<br>R. NAIRN<br>H. J. SMYTH } (Non-res.)<br>R. NAIRN }<br>J. T. CALVERT }                            |
| 1877-8.  | J. A. M. MOULLIN<br>G. H. MAKINS<br>H. U. SMITH<br>W. TYRRELL                                                                     | 1888-9.  | H. B. LUARD<br>C. W. COOKE<br>H. C. BRISTOWE<br>H. G. TURNEY<br>C. H. ECCLES } (Non-<br>W. H. L. COPELAND } res.)                                              |
| 1878-9.  | W. H. BATTLE<br>G. H. D. GIMLETTE<br>C. E. SHEPPARD<br>F. M. SANDWITH                                                             | 1889-90. | T. P. COWEN<br>F. C. ABBOTT<br>F. E. FORWARD<br>S. G. TOLLER<br>M. H. SPENCER } (Non-<br>L. COBBETT } res.)                                                    |
| 1879-80. | W. W. GROOME<br>R. P. SMITH<br>J. SHAW<br>A. NEWSHOLME                                                                            | 1890-1.  | W. W. STABB<br>T. A. DUKES<br>A. KING<br>W. F. UMNEY<br>G. H. WICKHAM } (Non-<br>H. J. COOPER } res.)<br>H. LOW }<br>C. P. LOVELL }                            |
| 1880-1.  | H. P. BUTLER<br>G. S. HATTON<br>H. R. HUTTON<br>T. D. ACLAND                                                                      | 1891-2.  | C. R. BOX<br>T. H. KELLOCK<br>C. LATTER<br>J. J. PERKINS<br>C. WYMAN<br>G. R. F. STILWELL } (Non-<br>D. F. SHEARER } res.)<br>W. P. PURVIS }                   |
| 1881-2.  | T. D. SAVILL<br>C. F. COXWELL<br>A. B. CARPENTER<br>S. W. SUTTON                                                                  | 1892-3.  | W. A. BOWRING<br>W. WATKINS-PITCHFORD<br>C. S. JAFFE<br>A. R. O. MILTON<br>W. P. FOOKS } (Non-<br>A. DALZELL } res.)<br>E. M. HAINWORTH }<br>M. R. P. DORMAN } |
| 1882-3.  | A. E. WELLS<br>W. WANSBROUGH JONES<br>C. W. HAIG-BROWN<br>W. FELL<br>E. F. WHITE } (Non-<br>L. W. BICKLE } res.)                  | 1893-4.  | T. W. HICKS<br>G. W. THOMPSON<br>A. E. RUSSELL<br>W. J. C. MERRY<br>P. NORTHCOTE } (Non-<br>G. W. H. BIRD } res.)<br>F. PERSHOUSE }<br>C. W. WINDSOR }         |
| 1883-4.  | A. FOXWELL<br>H. M. N. MILTON<br>C. D. GREEN<br>W. HULL<br>W. J. SHEPPARD } (Non-<br>J. ORFORD } res.)                            | 1894-5.  | R. E. NIX<br>A. M. COLLCUTT<br>E. A. SAUNDERS<br>G. G. GENGE                                                                                                   |
| 1884-5.  | G. D. JOHNSTON<br>F. F. CAIGER<br>H. B. ROBINSON<br>H. W. G. MACKENZIE<br>F. W. S. STONE } (Non-<br>H. H. LANKESTER } res.)       |          |                                                                                                                                                                |
| 1885-6.  | R. M. WILLIAMS<br>J. M. CLARKE<br>J. S. HUTTON<br>E. D. RITCHIE<br>T. GLOVER LYON } (Non-<br>Y. SANEYOSHI } res.)<br>F. M. HAIG } |          |                                                                                                                                                                |
| 1886-7.  | F. D. CROWDY<br>A. A. BROCKATT<br>C. S. EVANS<br>S. W. WHEATON                                                                    |          |                                                                                                                                                                |



HOUSE PHYSICIANS—*continued.*

|         |                                                                                                                                       |              |         |                                                                                                                                     |
|---------|---------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|-------------------------------------------------------------------------------------------------------------------------------------|
| 1894-5. | T. G. NICHOLSON<br>A. S. F. GRÜNBAUM<br>F. J. BRAKENRIDGE<br>J. W. LAVER                                                              | } (Non-res.) | 1896-7. | J. S. FAIRBAIRN<br>E. STAINER                                                                                                       |
| 1895-6. | E. G. C. DANIEL<br>L. L. JENNER<br>F. B. THORNTON<br>W. E. DIXON<br>P. J. A. SECCOMBE<br>F. G. LAYTON<br>E. W. PALIN<br>P. S. HICHENS |              | 1897-8. | H. C. JONAS<br>C. G. SELIGMANN<br>W. McDUGALL<br>H. N. GOODE<br>H. E. HEWITT<br>R. H. BELL<br>H. H. SCOTT<br>H. F. SHEA.            |
| 1896-7. | W. H. J. PATERSON<br>E. H. T. NASH<br>G. J. CONFORD<br>L. W. RICHARDS<br>A. W. SIKES<br>J. P. SCATCHARD                               | } (Non-res.) | 1898-9. | H. C. HASLAM<br>R. W. C. PIERCE<br>J. R. CHARLES<br>E. F. BUZZARD<br>G. B. THWAITES<br>H. D. SINGER<br>E. A. GATES<br>A. E. STEVENS |

## HOUSE SURGEONS.

|          |                                                                  |          |                                                                                         |
|----------|------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------|
| 1871-2.  | R. CORY<br>H. WILLIAMS<br>S. OSBORN<br>T. H. BONSER              | 1880-1.  | H. P. BUTLER<br>A. B. CARPENTER                                                         |
| 1872-3.  | E. SERGEANT<br>W. GARTON<br>A. H. LAVER<br>G. CLEGHORN           | 1881-2.  | T. D. ACLAND<br>F. W. MARLOW<br>M. P. M. COLLIER<br>E. F. WHITE                         |
| 1873-4.  | I. BOULGER<br>E. WELCHMAN<br>A. V. MAYBURY<br>H. W. VERDON       | 1882-3.  | W. A. DUNCAN<br>C. W. HAIG BROWN<br>H. M. MILTON<br>A. E. WELLS                         |
| 1874-5.  | J. CROSSMAN<br>G. M. TAYLOR<br>G. F. ROSSITER<br>J. W. CLARKSON  | 1883-4.  | W. WANSBROUGH JONES<br>G. F. COOPER<br>F. F. CAIGER<br>G. D. JOHNSTON                   |
| 1875-6.  | H. P. POTTER<br>H. H. CLUTTON<br>C. H. NEWBY<br>R. MAPLES        | 1884-5.  | J. ORFORD<br>H. B. ROBINSON<br>W. HULL<br>C. D. GREEN                                   |
| 1876-7.  | B. PITTS<br>R. MAPLES<br>C. C. SMITH<br>W. EDMUNDS               | 1885-6.  | R. LAWSON<br>B. RELTON<br>F. D. CROWDY<br>H. CAMERON KIDD                               |
| 1877-8.  | J. F. NICHOLSON<br>J. BLACK<br>F. H. WEEKES<br>W. H. BATTLE      | 1886-7.  | E. S. GOODDY<br>F. E. NICHOL<br>E. D. RITCHIE<br>J. S. HUTTON                           |
| 1878-9.  | G. H. MAKINS<br>G. H. D. GIMLETTE<br>H. U. SMITH<br>W. F. HASLAM | 1887-8.  | W. H. C. STAVELEY<br>S. H. JONES<br>J. H. TONKING<br>E. C. STABB                        |
| 1879-80. | K. TAKAKI<br>H. CASTLE<br>D. S. DAVIES<br>R. J. WILLIAMSON       | 1888-9.  | L. A. BIDWELL<br>W. F. BROOK<br>F. FAWSETT<br>W. W. ORD                                 |
| 1880-1.  | R. P. SMITH<br>C. E. SHEPPARD<br>J. R. LUNN<br>C. A. BALLANCE    | 1889-90. | J. T. CALVERT<br>F. C. ABBOTT<br>R. V. SOLLY<br>C. H. JAMES<br>C. BROWN<br>H. G. TURNEY |

HOUSE SURGEONS—*continued.*

|          |                                                                                                                                      |         |                                                                                                                                            |
|----------|--------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 1889-90. | A. N. BOYCOTT<br>H. H. HULBERT<br>F. R. S. MILTON<br>T. W. LAMBERT<br>T. P. COWEN<br>G. E. ANSON<br>H. GERVIS                        | 1894-5. | L. J. MISKIN<br>A. W. CUFF<br>W. J. C. MERRY<br>G. J. ARNOLD<br>R. FOX SYMONS<br>A. E. RUSSELL<br>H. W. HARDING                            |
| 1890-1.  | A. F. STABB<br>A. C. LANKESTER<br>H. W. NIX<br>E. E. WARE<br>S. G. TOLLER<br>W. S. GRIFFITH<br>W. G. G. STOKES<br>L. A. J. ROUILLARD | 1895-6. | E. O. THURSTON<br>A. L. HOME<br>W. G. STONE<br>H. J. DAVIS<br>L. A. R. WALLACE<br>H. C. CROUCH<br>J. L. PRAIN<br>G. J. CONFORD             |
| 1891-2.  | L. COBBETT<br>T. H. HAYDON<br>J. R. HARPER<br>C. WYMAN<br>T. H. KELLOCK<br>C. R. BOX<br>W. F. E. MILTON<br>T. A. M. FORDE            | 1896-7. | B. DYBALL<br>P. W. KENT<br>J. SMITH<br>W. D. FRAZER<br>A. ROTHERHAM<br>A. J. MARTINEAU<br>F. H. GERVIS<br>R. G. STRANGE<br>G. E. O. TAYLOR |
| 1892-3.  | A. BANKS<br>H. BURDEN<br>J. H. FISHER<br>P. J. ATKEY<br>W. P. PURVIS<br>R. R. LAW<br>W. G. SUTCLIFFE<br>W. L. WAINWRIGHT             | 1897-8. | W. H. J. PATERSON<br>A. W. TUKE<br>L. GILBERT<br>S. N. BABINGTON<br>J. F. MCCLEAN<br>H. J. MARRIAGE<br>J. S. HALL<br>H. H. SANGUINETTI     |
| 1893-4.  | C. S. WALLACE<br>E. SMITH<br>W. REDPATH<br>C. PLANCK<br>S. W. F. RICHARDSON<br>E. M. HAINWORTH<br>A. R. O. MILTON<br>G. W. THOMPSON  | 1898-9. | E. H. COBB<br>A. C. ROBINSON<br>F. L. A. GREAVES<br>A. H. GREG<br>S. O. BINGHAM<br>E. M. CORNER<br>J. A. BARNES<br>J. E. KILVERT           |
| 1894-5.  | H. A. DICKSON                                                                                                                        |         |                                                                                                                                            |

## ASSISTANT HOUSE PHYSICIANS.

|          |                                                                                                              |         |                                                                                                                                      |
|----------|--------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1877-8.  | W. TYRRELL<br>R. B. BOTHAMLEY<br>W. H. BATTLE<br>E. H. HARE                                                  | 1880-1. | F. R. WALTERS<br>C. B. RICHARDSON<br>H. SWALE<br>J. B. LAWFORD                                                                       |
| 1878-9.  | S. A. CRICK<br>J. H. BATTYE<br>K. TAKAKI<br>W. W. GROOME<br>W. B. HADDEN<br>W. F. HASLAM<br>R. C. BENNINGTON | 1881-2. | C. A. BALLANCE<br>M. P. M. COLLIER<br>A. B. CARPENTER<br>H. N. HOLBERTON<br>S. W. SUTTON<br>A. E. WELLS<br>F. W. MARLOW<br>R. HEELIS |
| 1879-80. | R. P. SMITH<br>D. S. DAVIES<br>J. SHAW<br>A. NEWSHOLME<br>J. R. LUNN<br>R. J. WILLIAMSON                     | 1882-3. | F. E. MARSTON<br>G. F. COOPER<br>C. W. HAIG-BROWN<br>H. M. N. MILTON<br>W. FELL<br>W. J. SHEPPARD                                    |
| 1880-1.  | J. R. LUNN<br>T. D. SAVILL<br>G. S. HATTON                                                                   | 1883-4. | W. HULL<br>F. F. CAIGER                                                                                                              |

ASSISTANT HOUSE PHYSICIANS—*continued.*

|         |                                                                               |          |                                                  |
|---------|-------------------------------------------------------------------------------|----------|--------------------------------------------------|
| 1883-4. | C. D. GREEN<br>W. B. TOMSON                                                   | 1886-87. | W. H. C. STAVELEY<br>H. P. HAWKINS               |
| 1884-5. | T. SCUTT<br>Y. SANEYOSHI<br>R. LAWSON<br>H. W. G. MACKENZIE<br>R. M. WILLIAMS | 1887-8.  | H. A. SANSOM<br>H. T. BULSTRODE<br>S. B. COOK    |
| 1885-6. | J. R. STADDON<br>E. D. RITCHIE<br>E. S. GOODDY<br>A. E. GODFREY               | 1888-9.  | H. B. SEDDON<br>G. R. ANDERSON                   |
| 1886-7. | C. S. EVANS<br>H. CAMERON KIDD                                                | 1889-90. | W. B. DE JERSEY<br>T. H. DICKSON                 |
|         |                                                                               | 1899.    | E. H. ROSS<br>H. C. THORP<br>J. GAFF<br>A. BEVAN |

## ASSISTANT HOUSE SURGEONS.

|          |                                                                                                                                                                                                                                                                                                                            |          |                                                                                                                                   |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1877-8.  | E. L. G. GAMBLE<br>G. H. D. GIMLETTE                                                                                                                                                                                                                                                                                       | 1887-8.  | F. FAWSETT<br>E. SOLLY<br>C. BROWN<br>R. V. SOLLY                                                                                 |
| 1878-9.  | W. F. HASLAM<br>H. CASTLE<br>R. P. SMITH<br>D. S. DAVIES                                                                                                                                                                                                                                                                   | 1888-9.  | C. H. JAMES<br>C. W. COOKE<br>S. B. COOK<br>E. HOBHOUSE<br>H. DUNCAN<br>F. C. ABBOTT<br>A. N. BOYCOTT<br>H. H. HULBERT            |
| 1879-80. | R. J. WILLIAMSON<br>C. A. BALLANCE<br>A. NEWSHOLME<br>J. R. LUNN                                                                                                                                                                                                                                                           | 1889-90. | F. R. S. MILTON<br>H. C. BRISTOWE<br>G. E. ANSON<br>H. GERVIS<br>T. P. COWEN<br>A. F. STABB<br>A. C. LANKESTER<br>J. H. DEWHURST  |
| 1880-1.  | F. R. WALTERS<br>C. B. RICHARDSON<br>M. P. M. COLLIER<br>H. SWALE                                                                                                                                                                                                                                                          | 1890-1.  | H. W. NIX<br>E. E. WARE<br>S. G. TOLLER<br>W. G. G. STOKES<br>D. F. SHEARER<br>L. A. J. ROUILLARD<br>T. H. HAYDON<br>J. R. HARPER |
| 1881-2.  | S. W. SUTTON<br>A. E. WELLS<br>E. F. WHITE<br>C. W. HAIG-BROWN                                                                                                                                                                                                                                                             | 1891-2.  | L. COBBETT<br>C. WYMAN<br>W. F. E. MILTON<br>T. A. M. FORDE<br>T. H. KELLOCK<br>C. R. BOX<br>H. BURDEN<br>P. J. ATKEY             |
| 1882-3.  | H. M. N. MILTON<br>W. FELL<br>G. F. COOPER<br>W. HULL                                                                                                                                                                                                                                                                      | 1892-3.  | A. BANKS<br>J. H. FISHER<br>R. R. LAW<br>W. G. SUTCLIFFE<br>W. P. PURVIS<br>W. L. WAINWRIGHT<br>C. S. WALLACE<br>E. SMITH         |
| 1883-4.  | W. WANSBROUGH JONES<br>G. D. JOHNSTON<br>F. F. CAIGER<br>W. J. SHEPPARD                                                                                                                                                                                                                                                    |          |                                                                                                                                   |
| 1884-5.  | H. B. ROBINSON<br>C. D. GREEN<br>R. LAWSON<br>B. RELTON<br>Y. SANEYOSHI<br>E. D. RITCHIE<br>F. D. CROWDY<br>H. CAMERON KIDD<br>E. S. GOODDY<br>F. E. NICHOL<br>C. S. EVANS<br>W. H. C. STAVELEY<br>S. H. JONES<br>K. TOTSUKA<br>J. H. TONKING<br>E. C. STABB<br>L. A. BIDWELL<br>W. F. BROOK<br>J. T. CALVERT<br>W. W. ORD |          |                                                                                                                                   |

ASSISTANT HOUSE SURGEONS—*continued.*

|         |                                                                                                                                                       |         |                                                                                                                                         |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1893-4. | W. REDPATH<br>C. PLANCK<br>E. M. HAINWORTH<br>A. R. O. MILTON<br>S. W. F. RICHARDSON<br>R. W. ORD<br>J. W. HEWETT<br>H. A. DICKSON                    | 1896-7. | A. J. MARTINEAU<br>F. H. GERVIS<br>R. G. STRANGE<br>G. E. O. TAYLOR<br>W. H. J. PATERSON<br>A. W. TUKE<br>L. GILBERT<br>S. N. BABINGTON |
| 1894-5. | L. J. MISKIN<br>A. W. CUFF<br>G. J. ARNOLD<br>R. FOX SYMONS<br>A. E. RUSSELL<br>H. W. HARDING<br>E. O. THURSTON<br>A. L. HOME                         | 1897-8. | J. F. MCCLEAN<br>H. J. MARRIAGE<br>J. S. HALL<br>H. H. SANGUINETTI<br>E. H. COBB<br>A. C. ROBINSON<br>F. L. A. GREAVES<br>A. H. GREG    |
| 1895-6. | W. G. STONE<br>H. J. DAVIS<br>L. A. R. WALLACE<br>H. C. CROUCH<br>J. L. PRAIN<br>G. J. CONFORD<br>B. DYBALL<br>P. W. KENT<br>J. SMITH<br>W. D. FRAZER | 1898-9. | S. O. BINGHAM<br>E. M. CORNER<br>J. A. BARNES<br>J. E. KILVERT<br>H. J. PHILLIPS<br>P. W. G. SARGENT<br>S. A. LUCAS<br>H. T. D. ACLAND  |

## RESIDENT ACCOUCHEURS.

|          |                                                                      |         |                                                                   |
|----------|----------------------------------------------------------------------|---------|-------------------------------------------------------------------|
| 1871-2.  | G. C. FRANKLIN.<br>B. ADDY<br>W. GARTON                              | 1880-1. | H. CASTLE<br>A. NEWSHOLME<br>J. SHAW<br>J. R. LUNN                |
| 1872-3.  | J. S. SLATER<br>M. H. C. PALMER<br>E. SERGEANT<br>L. WILLIAMS        | 1881-2. | W. F. HASLAM<br>H. P. BUTLER<br>W. A. DUNCAN<br>T. D. ACLAND      |
| 1873-4.  | G. M. WHITEHEAD<br>C. H. NEWBY<br>I. BOULGER<br>E. H. DAVIS          | 1882-3. | A. E. WELLS<br>G. F. COOPER<br>S. W. SUTTON<br>T. D. SAVILL       |
| 1874-5.  | H. S. BENNETT<br>C. M. TAYLOR                                        | 1883-4. | F. F. CAIGER<br>W. FELL<br>W. J. SHEPPARD<br>W. WANSBROUGH JONES  |
| 1875-6.  | W. EDMUNDS<br>S. W. J. JOSEPH<br>G. F. ROSSITER<br>C. C. SMITH       | 1884-5. | J. ORFORD<br>W. HULL<br>C. D. GREEN<br>G. D. JOHNSTON             |
| 1876-7.  | W. MORGAN<br>T. MILMAN<br>B. PITTS<br>R. MAPLES                      | 1885-6. | R. E. ROUSE<br>J. E. KERSHAW<br>H. H. LANKESTER<br>A. A. BROCKATT |
| 1877-8.  | C. H. H. CAMERON<br>G. H. D. GIMLETTE<br>C. H. WHITE<br>F. H. WEEKES | 1886-7. | J. S. HUTTON<br>C. YEOMAN<br>A. E. GODFREY<br>H. J. MACEVOY       |
| 1878-9.  | J. F. NICHOLSON<br>W. TYRRELL<br>F. M. SANDWITH<br>H. U. SMITH       | 1887-8. | E. SOLLY<br>W. A. BOND<br>H. J. SMYTH<br>J. D. BALANCE            |
| 1879-80. | W. H. BATTLE<br>K. TAKAKI<br>C. E. SHEPPARD<br>C. A. BALLANCE        | 1888-9. | S. W. WHEATON<br>C. H. JAMES<br>H. B. LUARD<br>E. C. STABB        |

**RESIDENT ACCOUCHEURS—continued.**

|          |                                                              |         |                                                     |
|----------|--------------------------------------------------------------|---------|-----------------------------------------------------|
| 1889-90. | F. FAWSETT<br>G. R. ANDERSON<br>G. E. ANSON<br>A. N. BOYCOTT | 1890-1. | H. B. OSBURN<br>H. GERVIS<br>H. LOW<br>W. R. CARTER |
|----------|--------------------------------------------------------------|---------|-----------------------------------------------------|

**SENIOR OBSTETRIC HOUSE PHYSICIANS.**

|         |                                                                    |         |                                                                     |
|---------|--------------------------------------------------------------------|---------|---------------------------------------------------------------------|
| 1891-2. | J. R. HARPER<br>W. G. G. STOKES<br>W. F. UMNEY<br>A. BANKS         | 1895-6. | S. W. F. RICHARDSON<br>G. CANDLER<br>E. A. SAUNDERS<br>G. G. GENGE  |
| 1892-3. | W. L. WAINWRIGHT<br>T. H. HAYDON<br>C. S. WALLACE<br>R. K. ELLIS   | 1896-7. | C. W. GRANT WILSON<br>P. L. BLABER<br>E. L. COLLIS<br>A. L. HOME    |
| 1893-4. | W. A. BOWRING<br>J. H. FISHER<br>R. F. CHANCE<br>T. W. HICKS       | 1897-8. | J. B. TOMBLESON<br>J. S. FAIRBAIRN<br>G. D. HINDLEY<br>S. D. TURNER |
| 1894-5. | C. S. JAFFÉ<br>P. C. FENWICK<br>E. G. E. ARNOLD<br>W. E. F. TINLEY | 1898-9. | H. T. M. ALFORD<br>H. F. SHEA<br>J. F. MCCLEAN<br>R. H. BELL        |

**SENIOR OBSTETRIC CLERKS.**

|          |                        |         |                                              |
|----------|------------------------|---------|----------------------------------------------|
| 1889-90. | H. B. OSBURN<br>H. LOW | 1890-1. | W. R. CARTER<br>J. R. HARPER<br>H. D. LEVICK |
| 1890-1.  | W. G. G. STOKES        |         |                                              |

**JUNIOR OBSTETRIC HOUSE PHYSICIANS.**

|         |                                                                            |         |                                                                     |
|---------|----------------------------------------------------------------------------|---------|---------------------------------------------------------------------|
| 1891-2. | W. F. UMNEY<br>A. BANKS<br>W. L. WAINWRIGHT<br>T. H. HAYDON                | 1895-6. | G. CANDLER<br>E. A. SAUNDERS<br>G. G. GENGE<br>C. W. GRANT WILSON.  |
| 1892-3. | C. LATTE<br>C. S. WALLACE<br>R. K. ELLIS<br>W. A. BOWRING                  | 1896-7. | P. L. BLABER<br>E. L. COLLIS<br>A. L. HOME<br>J. B. TOMBLESON       |
| 1893-4. | J. H. FISHER<br>R. F. CHANCE<br>T. W. HICKS<br>C. S. JAFFÉ                 | 1897-8. | J. P. SCATCHARD<br>G. D. HINDLEY<br>S. D. TURNER<br>H. T. M. ALFORD |
| 1894-5. | P. C. FENWICK<br>E. G. E. ARNOLD<br>W. E. F. TINLEY<br>S. W. F. RICHARDSON | 1898-9. | L. GILBERT<br>J. F. MCCLEAN<br>R. H. BELL<br>S. H. BELFRAGE         |

**OPHTHALMIC HOUSE SURGEONS.**

These appointments took the place of the "Clinical Assistants in the Eye Department."

|         |                                 |         |                                  |
|---------|---------------------------------|---------|----------------------------------|
| 1890-1. | H. C. BRISTOWE<br>F. E. FORWARD | 1894-5. | H. G. TOOMBS<br>A. H. P. DAWNAY  |
| 1891-2. | C. H. USHER<br>S. G. TOLLER     | 1895-6. | E. A. SAUNDERS<br>P. S. HICHENS  |
| 1892-3. | J. FISHER<br>E. P. ISAACS       | 1896-7. | E. HOPKINSON<br>F. A. C. TYRRELL |
| 1893-4. | J. F. RUDALL<br>J. H. FISHER    | 1897-8. | N. BABINGTON<br>J. S. HALL       |
| 1894-5. | J. H. FISHER                    | 1898-8. | T. HOBAN                         |



# SCHOLARSHIPS AND MEDALS.

## ENTRANCE SCIENCE SCHOLARS.

|          |                     |          |                      |
|----------|---------------------|----------|----------------------|
| 1875-6.  | H. A. H. FENTON     | 1887-8.  | W. B. WINSTON        |
|          | T. D. SAVILL        | 1888-9.  | E. M. HAINWORTH      |
| 1876-7.  | R. J. WILLIAMSON    |          | E. SMITH             |
|          | H. N. HOLBERTON     | 1889-90. | T. G. NICHOLSON      |
| 1877-8.  | W. WANSBROUGH JONES |          | A. E. RUSSELL        |
|          | A. E. WELLS         | 1890-1.  | P. J. DEAR           |
| 1878-9.  | W. HULL             |          | W. E. DIXON          |
| 1879-80. | R. M. WILLIAMS      |          | H. C. CROUCH         |
|          | B. RELTON           | 1891-2.  | A. H. STEWART        |
| 1880-1.  | R. LAWSON           |          | F. H. GERVIS         |
|          | H. H. LANKESTER     | 1892-3.  | A. W. SIKES          |
| 1881-2.  | SYDNEY H. JONES     |          | C. G. SELIGMANN      |
|          | J. S. HUTTON        | 1893-4.  | R. W. C. PIERCE      |
| 1882-3.  | H. DUNCAN           |          | H. E. HEWITT         |
|          | E. D. SHIRTLIFF     | 1894-5.  | J. GAFF              |
| 1883-4.  | C. W. COOKE         |          | H. R. BEALE          |
|          | F. FAWSETT          | 1895-6.  | F. B. SKERRETT       |
| 1884-5.  | F. C. ABBOTT        |          | W. B. FRY            |
|          | C. J. MARTIN        | 1896-7.  | A. B. LINDSEY        |
| 1885-6.  | A. F. STABB         |          | R. E. ROBERTS        |
|          | S. G. TOLLER        | 1897-8.  | W. H. HARWOOD-YARRED |
| 1886-7.  | C. P. LOVELL        |          | F. H. WHITEHEAD      |
|          | M. C. CLUTTERBUCK   | 1898-9.  | C. M. ROBERTS        |
| 1887-8.  | J. E. HARRIS        |          | C. H. LATHAM         |

## UNIVERSITY SCHOLARS.

|         |                  |         |                    |
|---------|------------------|---------|--------------------|
| 1894-5. | W. McDUGALL      | 1896-7. | R. J. HORTON SMITH |
| 1895-6. | P. W. G. SARGENT | 1897-8. | F. C. EVE          |

## TITE SCHOLARS.

1875. Change made in mode of award.

|           |                     |          |                      |
|-----------|---------------------|----------|----------------------|
| 1861-2-3. | H. SUMMERHAYES      | 1885-6.  | A. F. STABB          |
| 1864-5-8. | J. J. RIDGE         | 1886-7.  | H. BURDEN            |
| 1867-8.   | H. MEADOWS          | 1887-8.  | J. H. FISHER         |
| 1870-1-2. | I. BOULGER          | 1888-9.  | E. SMITH             |
| 1873-4-5. | F. H. PECK          | 1889-90. | S. W. F. RICHARDSON  |
| 1875-6.   | T. D. SAVILL        | 1890-1.  | K. J. PREVITÉ ORTON  |
| 1876-7.   | W. A. DUNCAN        | 1891-2.  | J. C. HARCOURT       |
| 1877-8.   | W. WANSBROUGH JONES | 1892-3.  | A. W. SIKES          |
| 1878-9.   | F. H. FURNIVAL      | 1893-4.  | H. E. HEWITT         |
| 1879-80.  | C. D. GREEN         | 1894-5.  | J. GAFF              |
| 1880-1.   | R. LAWSON           | 1895-6.  | C. F. SELOUS         |
| 1881-2.   | SYDNEY H. JONES     | 1896-7.  | C. N. SEARS          |
| 1882-3.   | H. P. HAWKINS       | 1897-8.  | W. H. HARWOOD-YARRED |
| 1883-4.   | F. FAWSETT          | 1898-9.  | G. C. ADENEY         |
| 1884-5.   | F. C. ABBOTT        |          |                      |

## MUSGROVE SCHOLARS.

Founded, April, 1875.

|           |              |            |                     |
|-----------|--------------|------------|---------------------|
| 1875-6-7. | S. J. TAYLOR | 1888-9-90. | J. H. FISHER        |
| 1877-8-9. | W. A. DUNCAN | 1890-1-2.  | S. W. F. RICHARDSON |
| 1880-1-2. | W. B. TOMSON | 1892-3-4.  | M. TAKAYASU         |
| 1882-3-4. | S. H. JONES  | 1894-5-6.  | H. E. HEWITT        |
|           | K. TOTSUKA   | 1896-7.    | C. F. SELOUS        |
|           |              | 1898-9.    | C. U. IND           |
| 1884-5-6. | F. FAWSETT   |            |                     |
| 1886-7-8. | A. F. STABB  |            |                     |

## PEACOCK SCHOLARS.

|            |               |           |             |
|------------|---------------|-----------|-------------|
| 1883-4-5.  | H. P. HAWKINS | 1891-2-3. | G. G. GENGE |
| 1885-6-7.  | F. C. ABBOTT  | 1893-4-5. | A. W. SIKES |
| 1887-8-9.  | C. P. LOVELL  | 1895-6-7. | J. GAFF     |
| 1889-90-1. | C. PLANCK     | 1897-8.   | C. N. SEARS |

## CHESOLDEN MEDALISTS.

|          |                             |          |                     |
|----------|-----------------------------|----------|---------------------|
| 1850-1.  | F. J. MONEY                 | 1875-6.  |                     |
| 1851-2.  | H. LANKESTER                | 1876-7.  | H. U. SMITH         |
|          | T. B. CROSBY (bronze medal) | 1877-8.  | W. F. HASLAM        |
| 1852-3.  | J. E. MORETON               | 1878-9.  | K. TAKAKI           |
| 1853-4.  | W. N. CHIPPERFIELD          | 1879-80. | W. A. DUNCAN        |
| 1854-5.  | W. M. ORD                   | 1880-1.  | C. W. HAIG-BROWN    |
| 1855-6.  | J. W. COUSINS               | 1881-2.  |                     |
| 1856-7.  | C. F. GEORGE                | 1882-3.  | G. D. JOHNSTON      |
| 1857-8.  | E. WOAKES                   | 1883-4.  | R. LAWSON           |
| 1858-9.  | C. H. DRAKE                 | 1884-5.  | S. H. JONES         |
| 1859-60. | T. DRAKE                    | 1885-6.  | J. H. TONKING       |
| 1860-1.  | J. W. HICKS                 | 1886-7.  | F. FAWSETT          |
| 1861-2.  | J. F. DECK                  | 1887-8.  | F. C. ABBOTT        |
| 1862-3.  | C. A. GREAVES               | 1888-9.  | A. C. LANKESTER     |
| 1863-4.  | W. W. WAGSTAFFE             | 1889-90. | T. H. KELLOCK       |
| 1864-5.  | F. H. WARD                  | 1890-1.  | A. BANKS            |
| 1865-6.  | W. W. INGLIS                | 1891-2.  | W. G. SUTCLIFFE     |
| 1866-7.  | W. ANDERSON                 | 1892-3.  | S. W. F. RICHARDSON |
| 1867-8.  | F. POLLARD                  | 1893-4.  | E. O. THURSTON      |
| 1868-9.  | L. M. THOMAS                | 1894-5.  | B. DYBALL           |
| 1869-70. | E. SERGEANT                 |          | A. J. MARTINEAU     |
| 1870-1.  | J. H. BONSER                |          | (Bronze Medal)      |
| 1871-2.  | A. H. LAVER                 | 1895-6.  | J. P. SCATCHARD     |
| 1872-3.  | G. F. ROSSITER              | 1896-7.  | A. C. ROBINSON      |
| 1873-4.  | H. P. POTTER                | 1897-8.  | S. O. BINGHAM       |
| 1874-5.  | J. F. NICHOLSON             | 1898-9.  | H. T. D. ACLAND     |

## NEWMAN SMITH PRIZE (MEAD).

|       |                |       |             |
|-------|----------------|-------|-------------|
| 1850. | J. W. KEYWORTH | 1855. | W. H. STONE |
| 1853. | J. E. MORETON  | 1858. | E. WOAKES   |
| 1854. | E. CLAPTON     | 1859. | J. HILDITCH |

## MEAD MEDALISTS.

In lieu of the Newman Smith Prize from December, 1874.

|          |                              |          |                 |
|----------|------------------------------|----------|-----------------|
| 1874-5.  | J. F. NICHOLSON              | 1886-7.  | W. W. ORD       |
| 1875-6.  |                              | 1887-8.  | H. G. TURNEY    |
| 1876-7.  | G. B. LONGSTAFF              | 1888-9.  | S. G. TOLLER    |
| 1877-8.  | S. J. TAYLOR                 | 1889-90. | W. W. STABB     |
| 1878-9.  | T. D. ACLAND                 | 1890-1.  | C. LATTER       |
| 1879-80. | C. F. COXWELL                | 1891-2.  | A. R. O. MILTON |
| 1880-1.  | W. WANSBROUGH JONES          | 1892-3.  | E. A. SAUNDERS  |
| 1881-2.  | W. HULL                      | 1893-4.  | G. G. GENGE     |
| 1882-3.  | F. F. CAIGER                 | 1894-5.  | F. B. THORNTON  |
| 1883-4.  | H. W. G. MACKENZIE           | 1895-6.  | A. W. SIKES     |
| 1884-5.  | F. D. CROWDY                 | 1896-7.  | H. C. JONAS     |
| 1885-6.  | S. W. WHEATON                | 1897-8.  | E. F. BUZZARD   |
| 1885-6.  | H. J. MACEVOY (Bronze Medal) | 1898-9.  |                 |

## WAINWRIGHT PRIZEMAN.

1898-9. R. J. HORTON-SMITH.

## TREASURER'S GOLD MEDALISTS.

|          |                                                               |          |                     |
|----------|---------------------------------------------------------------|----------|---------------------|
| 1846-7.  | H. D. BENWELL                                                 | 1872-3.  | G. F. ROSSITER      |
| 1847-8.  | J. S. BRISTOWE                                                | 1873-4.  | H. C. SANDFORD      |
| 1848-9.  | L. W. SEDGWICK                                                | 1874-5.  | J. F. NICHOLSON     |
| 1849-50. | A. CARPENTER                                                  | 1875-6.  |                     |
| 1850-1.  | { F. J. MONEY (Gold Medal)<br>C. W. CHALDECOTT (Silver Medal) | 1876-7.  | C. E. SHEPPARD      |
| 1851-2.  | H. LANKESTER                                                  | 1877-8.  | S. J. TAYLOR        |
| 1852-3.  | J. E. MORETON                                                 | 1878-9.  | K. TAKAKI           |
| 1853-4.  | W. N. CHIPPERFIELD                                            | 1879-80. | W. A. DUNCAN        |
| 1854-5.  | W. M. ORD                                                     | 1880-1.  | W. WANSBROUGH JONES |
| 1855-6.  | W. H. STONE                                                   | 1881-2.  | W. J. SHEPPARD      |
| 1856-7.  | J. WILLIAMS                                                   | 1882-3.  | W. B. TOMSON        |
| 1857-8.  | H. GERVIS                                                     | 1883-4.  | R. LAWSON           |
| 1858-9.  | C. H. DRAKE                                                   | 1884-5.  | S. H. JONES         |
| 1859-60. | T. DRAKE                                                      | 1885-6.  | H. J. SMYTH         |
| 1860-1.  | J. W. HICKS                                                   | 1886-7.  | F. FAWSETT          |
| 1861-2.  | J. F. DECK                                                    | 1887-8.  | F. C. ABBOTT        |
| 1862-3.  | H. SUMMERHAYES                                                | 1888-9.  | A. F. STABB         |
| 1863-4.  | W. W. WAGSTAFFE                                               | 1889-90. | A. KING             |
| 1864-5.  | F. H. WARD                                                    | 1890-1.  | J. H. FISHER        |
| 1865-6.  | A. WALLER                                                     | 1891-2.  | E. SMITH            |
| 1866-7.  | N. C. DOBSON                                                  | 1892-3.  | S. W. F. RICHARDSON |
| 1867-8.  | J. J. RIDGE                                                   | 1893-4.  | G. G. GENGE         |
| 1868-9.  | H. W. SAUNDERS                                                | 1894-5.  | A. J. MARTINEAU     |
| 1869-70. | J. S. SLATER                                                  | 1895-6.  | J. P. SCATCHARD     |
| 1870-1.  | B. ADDY                                                       | 1896-7.  | A. W. SIKES         |
| 1871-2.  | A. V. MAYBURY                                                 | 1897-8.  | H. E. HEWITT        |
|          |                                                               | 1898-9.  | J. GAFF             |

## SOLLY MEDALISTS.

Founded, 1873.

|       |                     |       |               |
|-------|---------------------|-------|---------------|
| 1877. | W. H. BATTLE        | 1888. | C. H. JAMES   |
|       | C. W. DE LACY EVANS | 1890. | C. WYMAN      |
| 1878. | C. E. SHEPPARD      | 1892. | W. B. WINSTON |
| 1880. | C. A. BALLANCE      | 1894. | M. A. TEALE   |
| 1882. | W. A. DUNCAN        | 1896. | E. H. T. NASH |
| 1884. | J. PIETERSEN        | 1898. | C. W. PILCHER |
| 1886. | E. SOLLY            |       |               |

## GRAINGER TESTIMONIAL PRIZEMEN.

|         |                   |         |                   |
|---------|-------------------|---------|-------------------|
| 1866.   | J. J. RIDGE       | 1886-7. | F. G. PARSONS     |
| 1874-5. | H. P. POTTER      | 1893-4. | A. S. F. GRÜNBAUM |
| 1878-9. | W. A. DUNCAN      | 1896-7. | W. MCDUGALL       |
| 1882-3. | C. S. SHERRINGTON | 1897-8. | R. BEER           |

## BRISTOWE MEDALISTS.

|         |                 |         |              |
|---------|-----------------|---------|--------------|
| 1894-5. | A. L. HOME      | 1897-8. | A. W. SIKES  |
| 1895-6. | E. L. COLLIS    | 1898-9. | H. D. SINGER |
| 1896-7. | C. G. SELIGMANN |         |              |

## THE SALTERS' COMPANY RESEARCH FELLOWS.

|       |             |       |                |
|-------|-------------|-------|----------------|
| 1895. | C. S. JAFFE | 1899. | C. G. SELIGMAN |
| 1896. | W. E. DIXON |       |                |

## BEANEY SCHOLAR.

1896. B. DYBALL

## SUTTON SAM'S MEMORIAL PRIZEMAN.

1898. A. BEVAN.

# LOCAL LIST OF OLD STUDENTS OF ST. THOMAS'S HOSPITAL.

## ENGLAND AND WALES.

*(Excluding the London District.)*

- |                                                  |                                                                                                                                               |
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| ABBOTS-BROMLEY, STAFF.—<br>N. J. Newbould.       | BARROW-ON-TRENT, nr. DERBY.—<br>S. A. Crick.                                                                                                  |
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| ACOCK'S GREEN, WORC.—<br>H. Lowe.                | BATLEY, YORKS.—<br>J. Russell.                                                                                                                |
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LUDLOW, SALOP.—  
C. B. Cranstoun, G. Cranstoun,  
G. A. Shackel.  
LUTON, BEDS.—  
W. B. Tomson.  
LYME REGIS, DORSET.—  
H. J. Cooper.  
LYNTON, NORTH DEVON.—  
H. Roper.  
MACCLESFIELD, CHES.—  
E. S. Jotham.  
MACHYNLLETH, MONTG.—  
A. O. Davies.  
MADELY COURT, SALOP.—  
F. H. Pearce.  
MALTON, YORKS.—  
W. T. Colby, J. T. R. Miller.  
MALVERN, WORC.—  
A. A. Brockatt, J. W. G. Grant,  
W. Tyrrell, W. G. B. Tyrrell.  
MANCHESTER, LANC.—  
C. H. Braddon, D. H. Fraser, H. R. Hutton, J. T. Langley, J. Niven,  
M. J. Nolan, T. Windsor.  
MANSFIELD, NOTTS.—  
G. W. Sparke.  
MARGATE, KENT.—  
G. W. Chapman, F. E. Nichol,  
W. G. Sutcliffe, W. K. Treves.  
MARKET HARBOROUGH, LEIC.—  
T. A. Durrant.  
MARKET LAVINGTON, WILTS.—  
J. S. Lush, W. H. Lush.  
MARKET OVERTON, RUTLD.—  
J. R. Scott.  
MARKET WEIGHTON, YORKS.—  
T. J. Jefferson, H. Simpson.  
MARLBOROUGH, WILTS.—  
T. H. Haydon.  
MELTON MOWBRAY, LEIC.—  
J. Doubleday (retired).  
MERTHYR TYDVIL, GLAMORG.—  
T. J. Dyke, A. R. Jones.

MIDDLESBOROUGH.—  
H. D. Levick.  
MILDENHALL, SUFF.—  
G. W. Ord.  
MILTON HEATH, SURREY.—  
E. A. Saunders.  
MINCHINHAMPTON, GLOUC.—  
F. Fowler.  
MOLESEY, SURREY.—  
G. B. C. Blount, H. N. Holberton.  
MOOR PARK, YORKS.—  
H. Williams (not in practice).  
MORETON, DEVON.—  
W. J. Stephens.  
MORTHOE, DEVON.—  
G. B. Longstaff.  
MORTIMER, BERKS.—  
F. A. Floyer, W. J. Roalfe-Cox.  
MUNDESLEY, NORFOLK.—  
A. W. Quait.  
NAFFERTON, YORKS.—  
C. H. Eccles.  
NAILSWORTH, GLOUC.—  
C. J. Power.  
NANTGAREDIG, CARMARTHEN.—  
S. G. Morris.  
NEATH, GLAMORG.—  
J. W. Thomas.  
NEW MALDEN, SURREY.—  
R. Andrews.  
NEW SLEAFORD, LINC.—  
C. F. Bedford.  
NEWCASTLE-UNDER-LYME, STAFF.—  
G. S. Hatton, F. Webb.  
NEWCASTLE-UPON-TYNE, NTHLD.—  
W. D. Arnison, D. Embleton  
(retired), C. U. Laws.  
NEWPORT, I. W.—  
H. Castle, E. A. Waterworth.  
NEWPORT, MON.—  
D. W. Byers, H. B. Seddon, D. E. Thomas.  
NEWPORT, PEMB.—  
P. M. G. Williams.  
NEWTON-ABBOT, DEVON.—  
R. H. Grimbly.  
NORDRACH-UPON-MENDIP, SOM.—  
W. R. Thurnam.  
NORTH WALSHAM, NORFOLK.—  
H. Shephard, J. Shephard.  
NORTHALLERTON, YORKS.—  
J. A. Hutchinson, A. W. Pearse.  
NORTHAMPTON.—  
H. L. Dixon, A. C. Robinson.  
NORTHAN, DEVON.—  
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NORTHWICH, CHESHIRE.—  
H. H. Haward, T. Moreton.

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J. Fanning, J. Fielding, H. P.  
Kennard, R. J. Mills, H. C. Pattin,  
J. H. Stacy, S. J. Taylor.

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G. Laws, A. J. Martineau, J. B.  
Okell, C. H. White.

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G. V. Burd.

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T. Fort.

## ORPINGTON, KENT.—

R. Davis.

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A. B. Blaikie.

## OTTERY ST. MARY, DEVON.—

W. O. T. Annesley.

## OXFORD.—

E. Stainer, M. D. Stark.

## PEEL, ISLE OF MAN.—

W. C. Faraker.

## PELTON FELL, DURHAM.—

A. Warner.

## PEMBROKE.—

H. T. Jones.

## PENRYN, CORNWALL.—

A. E. Gladstone.

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W. W. Walker, R. Warrener

## PEWSEY, WILTS.—

W. F. Manners.

## PICKERING, YORKS.—

G. Colby.

## PLUMSTEAD, KENT.—

J. Smith.

## POLESWORTH, WARWICK.—

W. H. Smart.

## PONTEFRAC, YORKS.—

C. C. Moxon, J. Orford.

## PONT-Y-PRIDD, GLAM.—

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## POOLE, DORSET.—

H. A. Lawton.

## PORCHESTER, HANTS.—

J. L. Vardy.

## PORTESHAM, DORSET.—

H. C. March.

## PORTLAND, DORSET.—

O. F. N. Treadwell.

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V. Ford, T. A. M. Forde, W. H.  
Heffernan, R. A. L. Hill, A. V.  
Maybury, L. Maybury, R. W.  
Middleton, C. H. Newby, J. L.  
Vardy, F. W. Way, J. H. F. Way,  
J. P. Way.

## PORTSWOOD, HANTS.—

R. Ives.

## PRESTON, LANC.—

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S. A. Rigby, E. Sergeant.

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J. P. Clowes, S. Yeoman.

## QUEEN CAMEL, SOMERS.—

W. Pomeroy.

## RAINHILL, LANC.—

J. Wigglesworth.

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J. H. Sayers, G. E. Seon, S. W.  
Sutton.

## REDDITCH, WORC.—

C. C. Smith.

## REDHILL, SURREY.—

H. V. Barber, A. R. Barnes, E.  
Bromet.

## RICHMOND, SURREY.—

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Wadd, H. R. Wadd.

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M. Sharman.

## RIPLEY, SURREY.—

J. H. Sutcliffe (retired).

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G. B. Robathan.

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C. O. Parsons.

## ROBERTSBRIDGE, SUSSEX.—

C. Hoar.

## ROBIN HOOD'S BAY, YORKS.—

R. Wood.

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C. Green, A. Wright.

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Strong.

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## ROTTINGDEAN, SUSSEX.—

A. E. Ridsdale.

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C. W. Windsor.

## RUARDEAN, GLOUC.

H. W. Mills.

## RUGBY, WARW.—

C. Dukes, B. Relton.

## RYDE, I.W.—

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## ST. DAY, CORNWALL.—

E. H. Worth.

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W. Brisley, C. Hathaway, T. A.  
Papillon, E. D. Shirtliff.



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- SALISBURY, WILTS.—  
W. W. Ord.
- SANDOWN, I.W.—  
W. H. Smith.
- SAXMUNDHAM, SUFFOLK.—  
J. C. R. Richardson.
- SCARBOROUGH, YORKS.—  
G. W. Thompson.
- SELSEY, SUSSEX.—  
G. A. Child.
- SENNY BRIDGE, BRECON.—  
J. P. Jeffreys-Powell.
- SEVENOAKS, KENT.—  
A. J. Alliot, W. W. Wagstaffe.
- SHEEN, DERBY.—  
A. T. Bury.
- SHEERNESS-ON-SEA.—  
F. W. Waters.
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C. F. Coombe, A. W. Cuff, O. H.  
Hudson, A. H. Laver, J. S. Martin,  
H. T. Wightman.
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I. R. Cory.
- SHIFNAL, SALOP.—  
E. R. Holmes.
- SHIRLEY, HANTS.—  
H. Knight, G. H. Weston.
- SHOREHAM, SUSSEX.—  
C. M. Kempe.
- SHOTTISHAM, SUFF.—  
V. Edwards (retired).
- SHREWSBURY, SALOP.—  
L. E. G. De Woolfson.
- SIDCUP, KENT.—  
G. W. Davis, H. J. Frederick,  
W. D. Knocker, R. R. Law.
- SIDLESHAM, SUSSEX.—  
J. E. F. André.
- SKETTY, GLAMORG.—  
A. L. Perkins.
- SLOUGH, BUCKS.—  
R. S. Charsley, H. Fraser.
- SOLIHULL, WARW.—  
A. V. Bernays.
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Chance, G. H. Dodd, J. R. Keele,  
W. P. Purvis, R. W. F. Welch.
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- SOUTH LEIGH, OXON.—  
H. M. Bullock.
- SOUTHMINSTER, ESSEX.—  
F. Pershouse.
- SOUTH MOLTON, DEVON.—  
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- SOUTHPORT, LANC.—  
B. Addy, G. R. Anderson, A. E.  
Cox.
- SPALDING, LINC.—  
G. H. Alcock, H. T. Stiles.
- SPILSBY, Lincs.—  
R. Sloccock.
- SPRING GROVE, MIDDLEX.—  
J. B. Tombleson.
- STAFFORD.—  
J. H. Croudace.
- STAINDROP, DURH.—  
G. E. Vivian.
- STAINES, MIDDLESEX.—  
T. H. Scutt.
- STAMFORD, LINC.—  
W. D. Eddowes, W. D. Eddowes,  
Junr.
- STEYNING, SUSSEX.—  
C. M. Lewis.
- STOCK, ESSEX.—  
A. Clarke.
- STOCKLAND, DEVON.—  
W. S. Black.
- STOKE-UPON-TRENT.—  
H. Faulds, R. Hughes, H. H.  
Sanguinetti.
- STONE, STAFF.—  
H. Hartley.
- STONEYCROFT, LANC.—  
G. R. W. Parker.
- STOURBRIDGE, WORC.—  
E. L. Collis.
- STOW-ON-THE-WOLD, GLOS.—  
H. Stallard.
- STROUD, GLOUC.—  
A. W. Waller.
- STURMINSTER-NEWTON, DORSET.—  
J. Tarzewell (retired).
- SUNBURY-ON-THAMES.—  
W. L. Byham.
- SUNDERLAND, DUR.—  
W. Biggam, T. C. Squance.
- SURBITON, SURREY.—  
R. Ackerley, F. P. Atkinson, T.  
G. Brodie, H. Cogill, W. W.  
Groome, T. Hoban, G. Porter,  
E. H. Ross, H. C. Ross, C. D.  
Somers.
- SWANAGE, DORSET.—  
H. J. Clark.
- SWANSEA, GLAMORG.—  
W. F. Brook, A. D. Davidson,  
W. Morgan.
- SWINDON, WILTS.—  
W. J. H. Dawson, W. Howse,  
A. C. Swinhoe, G. R. Swinhoe.
- SWINTON, LANC.—  
J. Williams.

TADCASTER, YORKS.—  
J. P. Scatchard.  
TARVIN, CHES.—  
J. E. Moreton, T. W. E. Moreton.  
TATTENHALL, CHESH.—  
J. Cooke, H. Whichello.  
TAUNTON, SOMERS.—  
E. Deane (retired), S. Farrant, A.  
R. Iles, H. T. Rutherford, R. H.  
West, B. M. Young.  
TEDDINGTON, MIDLX.—  
J. P. Topping.  
TEIGNMOUTH, DEVON.—  
F. C. H. Piggott.  
TENBURY, WORC.—  
A. Haines, J. L. Sweet.  
TETTENHALL, STAFF.—  
J. Cooke, J. S. Revely.  
THIRSK, YORKS.—  
C. E. Proctor.  
THORNABY-ON-TEES, DUR.—  
E. I. Cowen.  
THORNTON, YORKS.—  
C. Yeoman.  
THRAPSTONE, NORTHANTS.—  
T. W. Buckley.  
TICEHURST, SUSSEX.—  
A. S. L. Newington, T. Newington.  
TICKHILL, YORKS.—  
G. G. Phillips.  
TIVERTON, DEVON.—  
G. F. Welsford.  
TOLLERTON, YORKS.—  
W. C. Ellis.  
TORCROSS, DEVON.—  
E. Swindells.  
TORQUAY, DEVON.—  
G. J. Arnold, T. D. Cook, F.  
D. Crowdy, S. Grose, W. W.  
Stabb.  
TOTTENHAM, MIDDLESEX.—  
A. S. R. Wainwright.  
TOTTON, HANTS.—  
P. R. Browning.  
TREDEGAR, MON.—  
T. G. Anthony.  
TREORCHY, GLAM.—  
A. G. Tribe.  
TRING, HERTS.—  
H. P. Gilbert, R. B. Williams.  
TROEDYRHIW, GLAMORG.—  
C. M. Jones.  
TUDDENHAM, SUFF.—  
Rev. H. F. Banham.  
TUNBRIDGE WELLS, KENT.—  
S. E. A. Gilder, T. C. Guthrie, P.  
C. Low.  
TWICKENHAM, MIDDLESEX.—  
W. V. Bird (retired), J. R. Leeson.  
UCKFIELD, SUSSEX.—  
G. Lucas.

ULCEBY, Lincs.—  
T. Baron.  
UXBRIDGE, MIDDLESEX.—  
A. Charpentier.  
VENTNOR, I.W.—  
J. L. Whitehead.  
WATFORD, HERTS.—  
A. E. Cox.  
WAINFLEET, LINC.—  
G. H. Doudney.  
WAKEFIELD, YORKS.—  
G. G. B. Hein.  
WALKERINGHAM, NOTTS.—  
W. W. C. Robson.  
WALLINGFORD, BERKS.—  
E. C. Walter.  
WALMER (UPPER), KENT.—  
J. B. Harris.  
WALSALL, STAFFS.—  
J. R. Charles, F. G. Layton.  
WALTHAM CROSS, HERTS.—  
W. S. Mavor.  
WARMINSTER, WILTS.—  
D. F. Shearer.  
WARRINGTON, LANCs.—  
J. G. Gornall.  
WARWICK.—  
W. R. Carter.  
WASHINGTON, DURHAM.—  
S. H. Whately.  
WATFORD, HERTS.—  
A. E. Cox, F. W. J. Goodhue, W.  
R. Hanbury.  
WATTON, HERTS.—  
H. B. Hodges, H. C. Hodges.  
WELLINGTON COLLEGE, BERKS.—  
H. G. Armstrong.  
WELLINGTON, SALOP.—  
K. B. J. Vickers.  
WELSHPOOL, MONTG.—  
F. E. Marston, T. Sowerby.  
WEST HARTLEPOOL, DURHAM.—  
E. H. Davis, E. J. Howley.  
WESTBURY, WILTS.—  
W. H. Reed.  
WESTON-SUPER-MARE, SOMERS.—  
H. T. M. Alford, W. H. G.  
Phelps, G. F. Rossiter.  
WEYBRIDGE, SURREY.—  
L. Cobbett, J. J. Powell, H. S.  
Willson.  
WHITBY, YORKS.—  
C. F. Burton, W. E. F. Tinley.  
WHITCHURCH, GLAM.—  
E. B. G. Stableford.  
WHITSTABLE, KENT.—  
C. ETHERIDGE.  
WHITTINGTON, DERBY.—  
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WIGAN, LANC.—  
J. B. Stuart.

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H. C. Meacock.

**WISBOROUGH GREEN, SUSSEX.—**

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**WITHERIDGE, DEVON.—**

C. H. Stewart.

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R. L. Storrar.

**WOLSTON, WARW.—**

H. H. Heffernan.

**WOLVERHAMPTON, STAFF.—**

F. Edge, J. W. Scott.

**WOODFORD, ESSEX.—**

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**WOODHALL SPA, LINC.—**

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**WOOTTON-BASSETT, WILTS.—**

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**WORCESTER PARK, SURREY.—**

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**WORKSOP, NOTTS.—**

A. J. H. Montague.

**WORTHING, SUSSEX.—**

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H. V. Palin.

**WRINGTON, SOMERSET.—**

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**YALDING, KENT.—**

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**YARMOUTH, NORF.—**

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**YEADON, YORKS.—**

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**YEALAND CONYERS, LANC.—**

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**GLASGOW.—**

D. Sinclair.

**POLMONT, STIRLING.—**

T. H. Lawrie.

**STRANRAER, WIGTOWN.—**

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W. Calwell, R. C. McCullagh.

**CLONMEL, TIPPERARY.—**

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**DOWNPATRICK, DOWN.—**

W. Ranson.

**DUNMURRY, ANTRIM.—**

D. P. Gaussen.

**EASKY, CO. SLIGO.—**

T. G. Fenton.

**KILLARNEY, KERRY.—**

G. Stoker.

**KNOCK, ANTRIM.—**

J. K. Kerr.

**LARNE, ANTRIM.—**

D. P. S. Hill.

**NEW ROSS, WEXFORD.—**

G. B. Crawford.

**FRANCE.****CANNES.—**

F. W. Giles.

**PARIS.—**

E. E. Barret, R. Liebreich.

**VUE.—**

H. de Fonmartin.

**GIBRALTAR.**

J. E. Ker.

**ITALY.****BORDIGHERA.—**

H. Danvers (Winter).

**LUCCA, BATHS OF.—**

H. Danvers (Summer).

**SAN REMO.—**

A. J. Freeman.

**MALTA.****VALETTA.—**

A. E. Mifsud.

**MONACO.****W. A. Fitzgerald, R. E. Rouse.****CEYLON.****DIKOYA.—**

A. R. O. Milton.

**CHINA.**

HONG KONG.—A. M. Cowie, Ho Kai.  
PINGYANG.—J. W. Hewett.

**INDIA.**

BARODA.—E. R. Dadachanji.  
BOMBAY.—D. R. Wadia.  
CALCUTTA.—W. Coulter, W. W. Manuk,  
J. E. Panioty.  
CINNAMARA.—J. Hewan.  
GURGAOM, DELHI.—W. Forrester.  
HYLA KANDY.—D. Taylor.  
KADUR.—A. S. Fernandes.  
KARACHI.—S. M. Kaka.  
MUKTESAR.—A. Lingard.  
NALGRAKATA.—E. J. Cowen.  
NAZIRA.—C. E. Caudle.  
PESHAWUR.—A. C. Lankester, C. P.  
Lankester.  
PURULIA.—P. A. Rigby.  
SAVANTVADI.—D. G. Dalgado.  
SAMASTIPUR.—S. James.

**JAPAN.**

SHICHÔME.—M. Takayasu.  
TOKIO.—K. Hayashi, Y. Saneyoshi,  
S. Suzuki, K. Takaki, K. Totsuka.

**STRAITS  
SETTLEMENTS.**

KUANTAU.—J. Widner Rolph.  
SINGAPORE.—M. F. Simon.  
ULU PAHANG.—J. D. Gimlette.

**TURKEY IN ASIA.**

BAGDAD.—H. M. Sutton.  
CONSTANTINOPLE.—J. F. McClean.  
JERUSALEM.—P. C. E. D'E. Wheeler.

**CAPE COLONY.**

ALICEDALE.—C. Robertson.  
CAPE TOWN.—J. Harper, W. T.  
Pauling, P. C. Thomas, A. M.  
Wilson.  
CRADOCK.—A. King.  
GRAHAMSTOWN.—G. C. Purvis.  
PORT ALFRED.—C. E. Jones.  
RONDEBOSCH.—E. S. Stevenson.  
VICTORIA WEST.—G. B. S. Darter.  
WOODSTOCK.—A. W. Caporn.

**EGYPT.**

CAIRO.—F. R. S. Milton, H. M. N.  
Milton, F. M. Sandwith, S. G.  
Toller.

**GOLD COAST.**

ACCRA.—E. Mattei.  
LAGOS.—Prince Orisadipe, O. Sapara.

**MADEIRA.**

M. C. Grabham.

**MOROCCO.**

E. S. Verdon.

**RHODESIA.**

GWANDA.—W. Redpath.  
UMTALI.—F. E. Appleyard.

**NATAL.**

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Rouillard, G. E. O. Taylor.  
ISIPINGO.—F. W. Greene.  
LADYSMITH.—J. A. A. Rouillard.

**ORANGE FREE STATE.**

BLOEMFONTEIN.—Rt. Rev. J. W.  
Hicks.

**TRANSVAAL.**

EUREKA CITY.—A. R. P. Saunderson.  
JOHANNESBURG.—A. D. Bensusan,  
W. D. Frazer, M. J. Longinotto.  
LYDENBURG.—W. Stokes.  
PRETORIA.—P. C. de Wet, T. L. Laxton.

**BRITISH EAST AFRICA.**

UGANDA.—A. D. McKinnon.

**SIERRA LEONE.**

FREETOWN.—E. J. Hayford.

**CANADA.**

DAWSON CITY, KLONDIKE.—E. D.  
Dunn.  
HALIFAX.—M. Chisholm.  
INNISFAIL.—H. George.  
KAMLOOPS.—T. W. Lambert.  
LONDON.—J. Wishart.  
MONTREAL.—C. R. Gillard, T. G.  
Hockridge, H. L. Reddy, F. J.  
Shepherd.  
NEW WESTMINSTER.—G. F. Bodington.  
PRINCE EDWARD ISLAND.—F. P.  
Taylor.  
PETERBOROUGH.—D. Fraser.  
ROSSLAND.—H. L. A. Keller.  
STANHOPE.—W. T. Ward.  
TORONTO.—W. H. Aikins, A. M.  
Baines.  
VANCOUVER.—D. B. Irving, G. D.  
Johnston.  
VICTORIA.—C. F. Newcombe.  
WINNIPEG.—J. W. Good.

## NEWFOUNDLAND.

PILLEY'S ISLAND.—R. F. Hiley.  
ST. JOHN'S.—F. A. Stabb.

## UNITED STATES.

COLORADO SPRINGS.—S. E. Solly.  
HARTFORD, CONN.—J. W. Booth.  
LOS ANGELES, CALIF.—J. Ellis.  
SAN FRANCISCO.—W. E. Ledyard.  
SYRACUSE.—F. W. Marlow.

## WEST INDIA ISLANDS.

ANTIGUA.—F. E. Forward.  
BARBADOS.—R. B. Walcott.  
BERMUDA.—E. Harvey.  
JAMAICA.—J. L. C. Cox, M. Grabham,  
T. P. Madden.  
TRINIDAD.—W. F. Cleaver, R. H. E.  
Knaggs, S. F. Proctor, A. A.  
Rostant.

## CHILI

VALPARAISO.—G. F. Cooper.

## FALKLAND ISLANDS.

FORT DARWIN.—C. N. Foley.

## FIJI.

BA.—G. W. A. Lynch.  
SUVA.—B. G. Corney, M. T. Finucane,  
A. A. Montague.

## NEW SOUTH WALES.

ANNANDALE.—J. B. McIlroy.  
ASHFIELD.—J. F. Deck.  
COOTAMUNDRA.—W. Hull.  
GOSFORD.—S. Fielder.  
GRAFTON.—M. H. Webster.  
HILLGROVE.—H. M. Massey.  
LYNTONSTOWE.—T. R. Lewers.  
RICHMOND.—W. M. Helsham.  
SYDNEY.—A. A. Cohen, C. J. Martin,  
W. L. Mathias, A. W. Munro,  
J. W. B. Wades.

## NEW ZEALAND.

AMBERLEY.—G. W. Fitz-Henry.  
BLENHEIM.—G. Cleghorn.  
CHRISTCHURCH.—P. C. Fenwick.  
HASTINGS.—R. Nairn  
NAPIER.—H. F. Bernau, A. E. Ronald.  
NEW PLYMOUTH.—H. B. Leatham.  
OAMARU.—S. B. Reid.  
WELLINGTON.—G. E. Anson, W. Fell,  
J. H. Pugh.

## QUEENSLAND.

BRISBANE.—A. B. Brockway.  
GAYNDALE.—G. Davidson.  
LONGREACH.—H. S. Lindsay.  
NORMANTON.—W. E. Roth.  
WARWICK.—A. O. H. Phillips.

## SOUTH AUSTRALIA.

ADELAIDE.—L. W. Bickle, J. Hanson,  
E. W. Morris, B. Poulton, H. A.  
Sweetapple.  
KENSINGTON.—S. Warren.  
MOONTA.—J. W. Keyworth.

## VICTORIA.

BALLARAT.—H. H. Radcliffe.  
BRIGHTON.—C. F. Coxwell.  
CAMPERDOWN.—A. J. W. Pettigrew.  
GEELONG.—S. R. Robinson.  
MELBOURNE.—A. J. R. Lewellin, S.  
Plowman, J. F. Rudall, J. T.  
Rudall.  
OCEAN GROVE.—G. Shirres.  
ST. KILDA.—E. L. Simmons.  
WARRNAMBOOL.—H. L. Miller.

## WESTERN AUSTRALIA.

FREMANTLE.—H. J. Lotz.  
KATAUNING.—F. M. House.  
LAWLERS.—W. J. Olivey.  
MARBLE BAR.—H. W. Nix.  
PERTH.—R. C. Benington, C. Mattei,  
L. J. Miskin, E. P. Thurstan.  
YORK.—D. E. Darbyshire.



# Medical Officers of the Naval, Military, and Indian Services.

- ADDISON, C. J. Major R.A.M.C.  
 ALPIN, W. G. P. Maj. I.M.S. Bengal.  
 ARCHER, S. A. Lieut. R.A.M.C.  
 AVETOOM, S. T. Maj. I.M.S. Bombay.  
 BARKER, F. R. Maj. R.A.M.C.  
 BATE, G. Surg. R.N. Retired.  
 BENT, G. Capt. R.A.M.C.  
 BOULGER, I. Lt.-Col. R.A.M.C.  
 BRAKE, J. Surg.-Gen. I.M.S. Retired.  
 BURDEN, H. Capt. I.M.S. Bengal.  
 BUTTERWORTH, S. Maj. R.A.M.C.  
 CALVERT, J. T. Capt. I.M.S. Bengal.  
 CAMERON, C. Lt.-Col. I.M.S. Bengal.  
 Retired.  
 CARR-WHITE, P. Capt. I.M.S. Madras.  
 CHEVERS, H. L. G. Capt. R.A.M.C.  
 CHOPPING, A. R.A.M.C.  
 CLARKSON, F. C. Capt. I.M.S. Bengal.  
 CLARKSON, J. W. Lt.-Col. I.M.S.  
 Bombay.  
 COAD, J. E. Surg. R.N.  
 COLLINGWOOD, P. H. Lieut. R.A.M.C.  
 COLMAN, G. M. H. Maj. R.A.M.C.  
 Retired.  
 COOKSON, H. Maj. I.M.S. Bengal.  
 Retired.  
 CORNWALL, J. W. Lieut. I.M.S.  
 COWEN, W. A. D. Maj. R.A.M.C.  
 DE LOM, H. A. Capt. R.A.M.C.  
 DEWES, F. J. Capt. I.M.S. Madras.  
 DICKERSON, S. H. Lt.-Col. R.A.M.C.  
 Retired.  
 DURANT, R. J. A. Capt. R.A.M.C.  
 DURSTON, J. C. Surg. R.N.  
 EARLE, H. E. L. Surg. R.N. Retired.  
 EDYE, J. S. Capt. R.A.M.C.  
 FAWSETT, R. Lieut. R.A.M.C.  
 FISHER, J. Capt. I.M.S. Bengal.  
 FLETCHER, W. B. Fleet-Surg. R.N.  
 Retired.  
 FOOTNER, E. Lt.-Col. R.A.M.C.  
 Retired.  
 FREEMAN, E. C. Capt. R.A.M.C.  
 GABBETT, P. C. Capt. I.M.S. Madras.  
 GIMLETTE, G. H. D. Maj. I.M.S.  
 Bengal.  
 GIMLETTE, T. D. Fleet-Surg. R.N.  
 GRAY, C. Maj. R.A.M.C. Retired.  
 GROSE, S. Staff-Surg. R.N. Retired.  
 HAINES, E. Surg. R.N.  
 HAKIM, H. M. Maj. I.M.S. Madras.  
 HALL, J. L. Maj. R.A.M.C.  
 HARRIS, F. A. Maj. R.A.M.C.  
 HEATHER, B. G. Surg. R.N.  
 HOOPER, A. W. Lieut. R.A.M.C.  
 HUNT, J. P. Lt.-Col. R.A.M.C.  
 HUSKINSON, H. Surg. R.N.  
 ILLINGWORTH, J. A. Lt.-Col. R.A.M.C.  
 Retired.  
 JAMES, C. H. Capt. I.M.S. Bengal.  
 JULIUS, H. A. Surg. R.N.  
 KING, A. F. W. Lieut. I.M.S.  
 LANCASTER, J. Lt.-Col. I.M.S.  
 Madras.  
 LONDON, E. A.M.S. Retired.  
 LEWTAS, J. T. Lt.-Col. I.M.S.  
 Bengal.  
 LIGHTFOOT, W. S. Staff-Surg. R.N.  
 LUARD, H. B. Capt. I.M.S. Bengal.  
 McDONNELL, J. O'M. Lt.-Col. I.M.S.  
 Bengal. Retired.  
 MANLEY, W. G. N., C.B., V.C. Surg.-  
 Gen. R.A.M.C. Retired.  
 MATURIN, B. A. Maj. R.A.M.C.  
 MICHAEL, H. J. Maj. R.A.M.C.  
 MOORE, H. M. Capt. I.M.S. Bombay.  
 MOORES, S. G. Capt. R.A.M.C.  
 NAUTH, B. Capt. I.M.S. Madras.  
 NORRIS, H. L. Surg. R.N.  
 ODDIE, S. I. Surg. R.N. Retired.  
 OWEN, C. W., C.I.E., C.M.G. Lt.-Col.  
 I.M.S. Bengal.  
 PECK, F. S. Maj. I.M.S. Bengal.  
 PERRY, E. L. Lieut. I.M.S. Bengal.  
 PINTO, J. O. Capt. I.M.S. Madras.  
 POYNDER, G. F. Maj. R.A.M.C.  
 PRALL, C. B. Capt. I.M.S. Bengal.  
 RABY, J. Maj. I.M.S. Retired.  
 REILLY, C. C. Maj. R.A.M.C.  
 ROBINSON, G. W. Maj. R.A.M.C.  
 ROBINSON, S. C. B. Maj. R.A.M.C.  
 ROCK, C. H. Surg. R.N.  
 ROE, E. A. H. Lt.-Col. R.A.M.C.  
 Retired.  
 RORIE, J. Dep.-Insp.-Gen. R.N.  
 Retired.  
 SARKIES, S. C. Maj. I.M.S. Madras.  
 SINGH, B. J. Capt. I.M.S. Bengal.  
 SKARDON, T. G. Lt.-Col. I.M.S.  
 Bengal. Retired.  
 SLAUGHTER, C. H. Insp.-Gen. R.N.  
 Retired.  
 SLAUGHTER, W. B. Lt.-Col. R.A.M.C.  
 STADDON, H. E. Lieut. R.A.M.C.  
 SUTCLIFFE, P. T. Surg. R.N.  
 THORP, A. E. R.A.M.C.  
 TODD, H. J. Mc C. Staff-Surg. R.N.  
 TOWNSEND, H. W. W. Surg. R.N.  
 TREVOR, H. O. Maj. R.A.M.C.  
 TUCKER, W. H. I.M.S.  
 TUKE, A. W. I.M.S.  
 WHISTON, P. H. Capt. R.A.M.C.  
 WILES, J. Dep.-Surg.-Gen. R.A.M.C.  
 Retired.  
 WILLIAMS, A. H. Lt.-Col. I.M.S.  
 Bengal.  
 WILLIAMS, P. GARNONS. Surg. R.N.  
 WILLIS, C. F. Maj. I.M.S. Bombay.  
 WOODHOUSE, T. P. Maj. R.A.M.C.  
 WRIGHT, E. H. Capt. I.M.S.  
 Madras.  
 WYSARD, A. T. Surg. R.N.

# ALPHABETICAL LIST OF OLD STUDENTS OF ST. THOMAS'S HOSPITAL.

(The date indicates the year of entry.)

- ABBOTT, C. E. (1874). 1, Wellington Place, Cheltenham.
- ABBOTT, F. C. (1884). 44, Welbeck Street. B.Sc., M.B., M.S. Lond., F.R.C.S. Surg. to Out-patients, Evelina Hospital; Assist. Surg.; Surg. for Diseases of the Ear, St. Thomas's Hospital.  
w 1884-5. 1st Year Student, 1st Entrance Science Scholarship, The Wm. Tite Scholarship.  
s 1885. 1st Year Student, 1st Coll. Prize.  
w 1885-6. 2nd Year Student, The Peacock Scholarship.  
w 1886-7. 3rd Year Student, 2nd tenure of Peacock Scholarship with 1st Coll. Prize.  
w 1887-8. 4th Year Student, The Cheselden Medal;  
Treasurer's Gold Medal.  
H.P., H.S., A.H.S., Demonstrator of Anatomy Surgical Registrar and Resident Assistant Surgeon.
- ABEL, H. M. (1888). 10, King's Bench Walk, Inner Temple, and 7, Nicholas Lane, City. B.A. Oxon.
- ACHARD, A. L. (1880). 9, Blandford St., Manchester Square. M.D. Brux.
- ACKERLEY, R. (1885). Croft House, The Hill, Surbiton, Surrey. M.A., M.B., B.Ch. Oxon.
- ACLAND, H. T. D. (1894). St. Thomas's Hospital.  
w 1895-6. 2nd Year Student, 1st Coll. Prize.  
s 1896-2nd Year Student, 1st Coll. Prize.  
w 1896-7. 3rd Year Student, 3rd Coll. Prize.  
w 1898-9. 5th Year Student, The Cheselden Medal.  
A.H.S., Clin. Assist. Ear Dept.
- ACLAND, J. (1889). 22, Chichele Rd., Cricklewood.
- ACLAND, T. D. (1876). 74, Brook St., Grosvenor Square. M.A., M.D. Oxon.; F.R.C.P. Lond.; Physician, St. Thomas's Hospital; Physician, Brompton Hospital.  
w 1877-8. 3rd Year Physical Society's Prize. Paper published in Hospital Reports, Vol. VIII.  
w 1878-9. 4th Year Student, Mead Medal. Demonstr. of Pract. Med., Morb. Histol. and Pract. Physiol., H.S., H.P., R.A.
- ADAMS, A. J. B. (1885). Barnes.
- ADAMS, E. J. (1863). Birch Grove, Manchester Road, Broom Hill, Sheffield.
- ADAMS, F. (1877). 32, Trinity Square, Newington.
- ADAMS, W. (1840). 7, Loudoun Road, St. John's Wood. F.R.C.S.; Con. Surg. Gt. North. Cent. Hosp., Nat. Hosp. for Paral. and Epilep., and Nat. Orthop. Hosp.
- ADAMS, W. (1859). Fore Street, St. Clement's, Ipswich.
- ADDISON, C. J. (1872). Major, R.A.M.C.
- ADDY, B. (1868). Stretton, Weld Road Birkdale, Southport. M.D. Lond.  
1869. 1st Year Student, 1st Coll. Prize;  
Physical Society's 1st Year's Prize.  
1870. 2nd Year Student, 1st Coll. Prize;  
Physical Society's 2nd Year's Prize.  
1871. 3rd Year Student, 1st Coll. Prize;  
Prosecutor's Prize;  
Treasurer's Gold Medal.  
R.A., H.P.
- ADKINS, A. J. (1884). Park Hospital, Hither Green. M.D. Lond.  
Clin. Asst. Skin Dept.
- ADKINS, P. R. (1888). 39, Upper Rock Gardens, Brighton. M.D., B.S. Durham.
- ADYE, W. J. A. (1880). Church House, Bradford-on-Avon, Wilts.
- AHLWEDE, L. O. J. (1897). 224, Mare St., Hackney. M.D. Freiburg.
- AIKINS, W. H. (1881). 50, College Street, Toronto, Canada.
- AIR, A. C. (1863). 223, Selhurst Road, South Norwood.
- ALCOCK, G. H. (1891). Pinchbeck, Spalding, Lincs.
- ALFORD, H. T. M. (1892). The Hospital, Weston-Super-Mare.  
Obst. H.P.
- ALLCOCK, G. (1892). Thornvale, Penns Lane, Erdington, nr. Birmingham.
- ALLDEN, S. J. (1890). 32, West Allington, Bridport. M.D., B.S. Durham.
- ALLEN, W. H. (1890). Stuart Villa, Harrington Street, Derby. B.A., M.B., B.C. Cantab.
- ALLFREY, F. H. (1895). Newport Pagnell, Bucks. B.A., M.B., B.C. Cantab.  
Clin. Assist. Ear Dept.
- ALLINGHAM, J. H. (1858). 76, Gayville Road, Wandsworth Common.

- ALLINGHAM, W. (1851). 59, Marina, St. Leonards-on-Sea. F.R.C.S.  
1854. Descriptive Anatomy, Prize;  
Surgery, Prize.  
1855. Medicine, Prize;  
Clinical Medicine, President's Prize  
Clinical Medicine, Treasurer's Prize.  
Surgical Tutor, Demonstrator of Anatomy,  
and Surgical Registrar.
- ALLIOTT, A. J. (1869). The Vine,  
Sevenoaks, Kent. B.A., M.D. Cantab.
- ALLPORT, R. H. (1893).
- ALPIN, W. G. P. (1877). Maj. I.M.S.  
M.D. Brux.  
Demonst. of Pract. Surg.
- AMBROSE, W. C. (1895). East London  
Hospital, Shadwell. B.A. Cantab.  
Clin. Asst. Throat Dept.
- ANDERSON, G. R. (1883). 18, Hoghton  
Street, Southport. F.R.C.S.  
R.A., A.H.P.
- ANDERSON, J. R. (1883).
- ANDERSON, M. J. B. (1889). 120,  
Lavender Hill.
- ANDERSON, W. (1864). 5, Cavendish  
Square, and Moor Edge, Walton on  
the Hill. F.R.C.S.; Surgeon, Lect.  
on Surgery, and Surg. Skin Departm.,  
St. Thomas's Hospital; Professor of  
Anatomy to the Royal Academy,  
Consulting Surgeon to the Hampstead  
General Hospital and Sevenoaks  
Hospital for diseases of the Hip,  
Member of the Court of Examiners at  
the Royal College of Surgeons; Exam.  
in Surg. Univ. Lond., and Conjoint  
Board.  
1865. 1st Year Student, 3rd Coll. Prize.  
1866. 2nd Year Student, 3rd Coll. Prize.  
1867. 3rd Year Student, 1st Coll. Prize;  
Physical Society's 3rd Year's Prize;  
Cheselden Medal.  
Surg. Registr., Demonstrator of Anatomy,  
Lecturer on Anatomy.  
H.S., R.A.
- ANDRÉ, J. E. F. (1886). The Gorse,  
Sidlesham, Chichester.
- ANDREW, H. (1884). 10, East South-  
ernhay, Exeter.
- ANDREWS, C. H. (1880). Willow  
Lane, Norwich.
- ANDREWS, R. (1879). Chestnut Grove,  
New Malden, Surrey.
- ANNESLEY, W. O. T. (1871). Mill St.,  
Ottery St. Mary, Devon.
- ANNESS, F. R. (1877). 32, Berners  
Street, Ipswich.
- ANSON, G. E. (1886). The Terrace,  
Wellington, New Zealand. M.D.,  
B.C. Cantab.  
H.S., A.H.S., R.A.
- ANTHONY, T. G. (1842). Tredegar,  
Monmouthshire.
- APPLETON, G. (1842). Park Braws,  
Lizard, Helston, Cornwall (retired).
- APPLETON, H. (1838). 21, Elmdale  
Road, Tyndall's Park, Bristol  
(retired). M.D. Aberd.
- APPLEYARD, F. E. (1891). Umtali,  
Mashonaland. B.A., M.B., B.C.,  
Cantab.  
Clin. Asst. Throat Dept.
- ARCHER, S. A. (1893). Lieut. R.A.M.C.
- ARMSTRONG, H. G. (1871). Wellington  
College, Berks.  
w 1874. 3rd Year Student, 3rd Coll. Prize.
- ARNISON, W. D. (1887). 2, Saville  
Place, Newcastle-on-Tyne. M.D.,  
B.S. Durham.
- ARNOLD, E. G. E. (1888). M.R.C.P.  
Lond., M.B., B.S., Durh.  
Obst. H.P.
- ARNOLD, G. J. (1888). The Towers,  
Torquay. F.R.C.S. Late Surg.  
P. & O.  
H.S., A.H.S., Clin. Asst. Throat & X-Ray  
Depts.
- ASH, J. (1892). Medina Villa, Elphin-  
stone Road, Southsea.
- ASHE, W. P. (1872). 17, Alexander  
Square. M.D. Durh.
- ASHFORD, W. (1890). Devon and  
Exeter Hospital.
- ATKEY, P. J. (1885). 46, Bellevue  
Road, Southampton. D.P.H. Camb.  
Late Surg. P. & O.  
H.S., A.H.S., Clin. Asst. Throat, Ear and  
Skin Depts.
- ATKINSON, A. E. (1894). 3, Southamp-  
ton Street, Strand. D.P.H.
- ATKINSON, F. P. (1860). Claremont  
Road, Surbiton, Surrey. M.D., C.M.,  
Aberd.; M.R.C.P. Edin.
- AUBIN, T. J. (1854). 39, La Motte  
Street, St. Helier's, Jersey. M.D.  
St. And.
- AVELING, C. T. (1862). Cedar House,  
136, Stamford Hill. M.D., M.S.  
Lond.; F.R.C.S.  
1863. Matriculation Examination — Phys-  
ics and Natural History, 1st Coll.  
Prize;  
1st Year Student, 1st Coll. Prize.  
1864. 2nd Year Student, 2nd Coll. Prize.  
1865. 3rd Year Student, 3rd Coll. Prize.  
H.S.
- AVETOOM, S. T. (1876). Surg.-Maj.  
Bombay Army.
- BABINGTON, S. N. (1892).  
s 1894. 2nd Year Student, 1st Coll. Prize.  
A.H.S., H.S., Ophth. H.S.
- BAIN, W. (1896). Straythorpe, York  
Place, Harrogate. M.D. Durh.,  
M.R.C.P. Lond., F.R.C.S. Edin.
- BAINES, A. M. (1878). Toronto,  
Canada.
- BAKER, A. (1891). 25, Falkner Street,  
Liverpool. M.D., B.S. Durham.
- BAKER, H. W. (1880). 152, Westbourne  
Grove.

- BALLANCE, C. A. (1875). 106, Harley St., Cavendish Square. M.B., M.S. Lond.; F.R.C.S.; Assistant Surgeon, Surgeon for Diseases of the Ear, and Teacher of Practical and Operative Surgery, St. Thomas's Hospital, Assistant Surgeon to the Hospital for Sick Children, Great Ormond St.; Surg. National Hosp., Queen Square. w 1876-7. 3rd Year Student, 3rd Coll. Prize, and Physical Society's 3rd Year's Prize.  
1880. The Solly Medal and Prize. Surgical Registrar, Demonstrator of Anatomy  
H.P., H.S., A.H.S., A.H.P., R.A.
- BALLANCE, J. DES C. (1881). 155, Hagley Road, Edgbaston, Birmingham. R.A.
- BANHAM, Rev. H. F. (1870). Tud-denham Vicarage, Ipswich (retired). M.A., M.D. Cantab.
- BANHAM, W. W. (1882). 147, Abbeydale Road, Sheffield.
- BANKS, A. (1887). West Hill Tower, Ryde, Isle of Wight. F.R.C.S., D.P.H.  
w 1887-8. 1st Year Student, 1st Coll. Prize. s 1890. 3rd Year Student, 2nd Coll. Prize. w 1890-1. 4th Year Student, The Cheselden Medal.  
H.S., A.H.S., Asst. Demonstr. of Pract. Surg., Clin. Asst. Skin Dept., Jun. and Sen. Obst. H.P.
- BARBER, H. V. (1878). 1a, Adelphi Terrace, W.C. M.A. Cantab.
- BARKER, E. M. (1892). 63, Warrior Square, St. Leonard's-on-Sea. B.A., M.B., B.C. Cantab.
- BARKER, F. (1884). Heighington, Linc.
- BARKER, F.R. (1872). Maj., R.A.M.C. M.B. Lond., D.P.H.
- BARNES, A. R. (1869). Newmeads Place, Merstham, Redhill. M.D. Edin.
- BARNES, J. A. (1893). 61, Harcourt Terrace, South Kensington. H.S., A.H.S.
- BARNES, J. S. (1891).
- BARNES, R. Conservative Club, and Lingwood, Liss, Hants (retired). M.D., F.R.C.P. Lond.; Luml. Lect.; Censor; F.R.C.S.; F.R.C.P.I. (Hon.). Formerly Obst. Phys. and Lect. on Obst., Lond., St. Thos. and St. Geo. Hosps., and Exam. Univ. Lond., R.C.P. Lond., and R.C.S. Eng.
- BARNES, R. S. F. (1870). 57, Harley Street, Cavendish Square. M.D., C.M. Aberd.; M.R.C.P. Lond., F.R.S.E. Sen. Phys. Roy. Matern. Charity.
- BARNETT, H. (1883). Burway House, Church Stretton Salop. M.A., M.B., B.C. Cantab.
- BARON, T. (1863). Ulceby, Linc. H.S.
- BARRACLOUGH, H. C. (1891). London Road, South Lowestoft. B.A., M.B., B.C. Cantab.
- BARRET, E. E. 12, Avenue de la Grande Armee, Paris, France. M.D. Brux., M.D. Paris.
- BARRETT, J. J. (1859). 170, Ramsden Road, Balham. M.D. St. And.
- BARRS, J. H. (1885). 6, Wandsworth Bridge Road, Fulham.
- BARTON, P. F. (1894). 1, Sunnyside, Wimbledon. B.A., M.B., B.C., Cantab.
- BARWELL, R. (1845). 55, Wimpole Street, Cavendish Square. F.R.C.S.; Consulting Surgeon to Charing Cross Hospital.  
1850. Clinical Medicine, Prize. H.S., Demonstr. of Anat.
- BASHALL, C. E. (1884). Park View House, Kimberley Road, Falmouth.
- BATE, G. (1871). 31, Linden Gardens, Chiswick. Late Surg. R.N.
- BATHURST, L. (1881). Ellesmere, Salop.
- BATTLE, W. H. (1873). 49, Harley Street, Cavendish Square. F.R.C.S., Asst. Surgeon and Teacher of Practical and Operative Surgery, St. Thomas's Hospital and Surgeon Royal Free Hospital.  
w 1875. 2nd Year Student, 3rd Coll. Prize. w 1876-7. 3rd Year Student, The First Solly Medal and Prize.  
Resident Assistant Surgeon, Surgical Registrar, H.S., H.P., A.H.P., R.A.
- BATTYE, J. H. (1872). 84, Belgrave Road. M.D.R.U.I. A.H.P.
- BAWTREE, F. (1893). Witham, Essex.
- BAXTER, S. E. (1885). 163, Grove Lane, Camberwell.
- BAYLISS, R. A. (1884). 26, Gay Street, Bath.
- BEALE, H. R. (1892). 27, Sisters Avenue, Battersea.  
w 1894-5. 1st Year Student, 2nd Entrance Science Scholarship, 1st Coll. Prize. Clin. Asst. Skin Dept.
- BEARDSLEY, A. (1843). The Towers, Grange-over-Sands, Lanc.
- BEDDARD, W. O. (1890). The Hospital, Dover.
- BEDDOES, T. P. (1882). 26, North Parade, Aberystwith. B.A., M.B., B.C. Cantab.; F.R.C.S.  
Clin. Asst. Skin Dept.
- BEDFORD, C. F. (1864). New Sleaford, Linc.
- BEDFORD, R. J. (1855). Kegworth, Leic. R.A.
- BELFRAGE, S. H. (1896). M.B., Lond. Obst., H.P., Clin. Asst. Ear and Elect. Depts.
- BELL, C. W. J. (1878). 61, Uppgate, Louth, Linc.



- BELL, E. S. (1883). Asst. Med. Off. St. Olave's Union Infirm., Lower Road, Rotherhithe.
- BELL, J. A. (1865). Deravona, Watts' Avenue, Rochester, Kent. H.S., R.A.
- BELL, J. V. (1858). Star Hill, Rochester, Kent. M.D. St. And., F.R.C.S. H.S., R.A.
- BELL, R. H. (1895). 22, Upper Richmond Road, Putney. M.A., M.B., B.C. Cantab. H.P., Obst., H.P.
- BENNINGTON, R. C. (1872). Perth, Western Australia. M.D., B.S., L.S.Sc. Durh. H.P., A.H.P., R.A.
- BENNETT, A. W. 6, Park Village East, Regent's Park. M.A., B.Sc. Lond. Lecturer on Botany.
- BENNETT, H. S. (1868). 53, Upper Berkeley Street, Portman Square, and 2, Birchlin Lane. M.B. Cantab. R.A.
- BENNETT, W. G. (1892). Lowesmoor Villa, Worcester.
- BENSLEY, E. C. (1858). 127, Fellows Road, South Hampstead. F.R.C.S.
- BENSON, G. V. (1888). Lewes, Sussex, M.A. Cantab.
- BENSUSAN, A. D. (1887). Johannesburg. M.D. Brux.
- BENT, G. (1879). Capt. R.A.M.C.
- BENTHALL, W. (1877). 102, Friar Gate, Derby. B.A., M.B. Cantab.
- BERNAU, H. F. (1885). Napier, New Zealand. Clin. Asst. Throat Dept.
- BERNAYS, A. V. (1875). Solihull, Warwk. B.A., M.B. Cantab. w 1880-1. 3rd Year Student, 1st Coll. Prize.
- BERNAYS, H. L. (1871). Rivoli, Old Charlton, Kent. w 1873. Prosector's Prize.
- BERNAYS, S. A. (1870). Church House, 185, St. Leonard's Road, South Bromley. Ophth. Clin. Assist.
- BERRIDGE, W. R. M. (1884). Enderby, near Leicester.
- BEVAN, A. (1894). 50, Elm Park Gardens, Chelsea. 1898. The Sutton Sams Memorial Prize. A.H.P., Clin. Assist. in Elect. Dept.
- BEVILLE, F. W. (1884). 19, New Cavendish Street. Clin. Asst. Skin Dept.
- BIBBY, J. (1876). Withy House, Bamber Bridge, Lanc.
- BICKLE, L. W. (1877). North Terrace, Adelaide, S. Australia. F.R.C.S. Edin. s 1878. 1st Year Student, 3rd Coll. Prize. s 1879. 2nd Year Student, 1st Coll. Prize. H.P.
- BIDDLE, D. (1859). Charlton Lodge, Kingston-on-Thames. 1860. 1st Year Student, Treasurer's Prize; Matriculation Exam., Prize. H.S.
- BIDWELL, L. A. (1882). 59, Wimpole Street, Cavendish Square. F.R.C.S. Sen. Asst. Surg. W. Lond. Hosp. H.S., A.H.S.
- BIGGAM, W. (1886). 15, The Oaks, Sunderland. M.A., M.B. Durh.
- BIGGER, W. G. (1883). Aberfoyle, Streatham Common. B.A.R.U.I., M.B., M.Ch.
- BILLSON, C. (1887). 28, Hornsey Pk. Rd.
- BINCKES, F. W. (1891). Hill Side, Overhill Road, East Dulwich. Clin. Assist. Electrical Dept.
- BINGHAM, S. O. (1892). Alfreton, Derbyshire. w 1897-8. 5th Year Student. The Cheselden Medal. H.S., A.H.S.
- BIRD, A. C. (1891). Clin. Assist. Ear Dept.
- BIRD, G. W. H. (1890). 6, King St., Bridgwater, Som. B.A., M.B., B.C. Cantab. H.P., Clin. Asst. Skin Dept.
- BIRD, W. V. (1870). 7, The Avenue, St. Margaret's, Twickenham (retired). M.D. Aberd., M.R.C.P.
- BLABER, P. L. (1890). Sunnybank, Shoot-up-Hill, Brondesbury. Obst. H.P., Clin. Assist. Throat Dept.
- BLACK, J. (1870). The Avenue, Beulah Hill, Norwood. B.A., M.B. Cantab., F.R.C.S., Lect. on Anat. Westm. Hosp. w 1872. 2nd Year Student, Prosector's Prize. H.S.
- BLACKER, A. B. (1879). 15, West Eaton Place, Eaton Square. M.D., B.S. Durh. Supt. of the X Ray Dept. St. Thomas's Hospital; Tel.: Sciomancy. Clin. Asst. Ear, Throat and Electrical Depts.
- BLADES, C. C. (1853). 182, Clapham Road. M.D. St. And.
- BLAIKIE, A. B. (1885). Oswestry, Salop. M.A., M.B., B.C. Cantab.
- BLAIR, C. S. (1889). Fulwood, Kew Gardens, Surrey. M.D. Durh.
- BLAKE, T. W. (1857). Hurstbourne, Bournemouth, Hants. M.D. St. And.
- BLAKEMAN, C. J. (1885). Res. Med. Off., City Hosp., South Grafton Street, Liverpool.
- BLAKISTON, F. C. (1892).
- BLOUNT, G. B. C. (1889). Chetwynd, East Molesey. Clin. Asst. Ear and Electr. Depts.
- BLUNSON, J. (1873).
- BLUNT, A. H. (1884). 133, King Richard's Road, Leicester.



- BODINGTON, G. F. (1885). Provincial Asyl., New Westminster. British Columbia. M.D. Durh.; M.R.C.P. Lond., F.R.C.S.
- BOND, B.W. (1886). Paper Harrow Rd., Glenside, Godalming. M.B., B.S. Durh.
- BOND, C. K. (1879). D.P.H.
- BOND, W. A. (1884). Holborn Town Hall. M.A., M.D., B.C., D.P.H. Cantab., M.R.C.P.
- R.A., Clin. Asst. Throat Dept.
- BOOTH, E. J. H. (1865).
- BOOTH, J. W. (1863). Hartford, Connecticut, U.S.A.
- BOSTOCK, L. (1891). Merefield House, Haslington, Crewe.
- BOTT, W. G. (1871). 37, Kennington Park Road. J.P.
- BOUCK, J. A. (1887). 447, Battersea Park Rd.
- BOULGER, I. (1869). Stawell House, Church Road, Forest Hill. Lt.-Col., R.A.M.C.
1870. 1st Year Student, Sir Wm. Tite's Scholarship.
1871. 2nd Year, Sir Wm. Tite's Scholarship.
- w 1872. 3rd Year, Sir Wm. Tite's Scholarship.
- H.S., R.A.
- BOURDAS, E. C. (1894.) Dunoon House, Clapham Common.
- Clin. Asst. Throat and Ear Depts.
- BOWEN, R. E. A. (1874). 285, Cambridge Road, Bethnal Green.
- BOWRING, W. A. (1887). 38, Montpelier Crescent, Brighton. F.R.C.S.
- H.P., Jun. and Sen. Obst. H.P.
- BOX, C. K. (1884). St. Thomas's Hospital. M.D., B.S., B.Sc. Lond., M.R.C.P., F.R.C.S., Resident Assist. Physician, Asst. Phys. Lond. Fever Hospital.
- w 1885-6. 1st Year Student, 2nd Coll. Prize.
- H.S., A.H.S., Res. H.P., Clin. Asst. Ear Dept., Medical Registrar and Demonstr. of Practical Medicine.
- BOYCOTT, A. N. (1884). Med. Sup. Herts Asyl. Hill End, St. Albans. M.D. Lond.
- H.S., A.H.S., R.A., Clin. Asst. Skin Dept.
- BOYS, A. H. (1871). Chequer Lawn, St. Alban's, Herts.
- BRACEY, H. R. (1870). 115, Bristol Road, Edgbaston, Birmingham.
- BRADDON, C. H. (1857). Ryecroft House, Cheetham Hill, Manchester. M.D. St. And., J.P.
- R.A.
- BRAKE, J. (1850). 1, St. Leonards Road, Ealing. Surg.-Gen. I.M.S. (retired).
1851. 1st Year Student, Scholarship.
1852. 2nd Year, Student, Scholarship. Physiology, Prize.
1853. 3rd Year Student, Scholarship. Clin. Med., Treasurer's Prize. Midwifery, Prize. Forensic Medicine, Prize.
- BRAKENRIDGE, F. J. (1889). R.A.M.C., D.P.H., Camb.
- H.P., Clin. Assist. Electr. Dept.
- BRETTON, L. M. (1888). Glendale Portswood Road, Southampton.
- BRISLEY, C. W. (1884). 103, London Road, St. Leonard's-on-Sea.
- BRISTOW, G. H. (1884.) F.R.C.S.I., M.D. Brux.
- Clin. Asst. Throat and Ear Depts.
- BRISTOWE, H. C. (1882). Wrington, Somerset. M.D. Lond.
- H.P., Ophth. H.S., A.H.S.
- BROCK, C. DE L. (1871). Alstone Lawn, Tooting Graveney.
- BROCK, J. (1871). 28, Wilbury Road, Hove, West Brighton.
- BROCKATT, A. A. (1881). Hazeldean, Malvern, Worc. M.D. Brux.
- R.A., H.P., Clin. Asst. Skin, Throat and Ear Depts.
- BROCKWAY, A. B. (1881). Brisbane, Queensland.
- BRODIE, T. Gregor. (1895). Lindfield, Uxbridge Road, Surbiton. M.D. Director of Research Laboratories Examination Hall. Examiner in Physiology for the Fellowship R.C.S., late Lect. on Physiology, St. Thomas's Hospital.
- BROMET, E. (1889). Earlswood, Redhill. M.A. Cantab
- BROOK, H. D. (1881). Fareham, Hants. D.P.H.
- BROOK, W. F. (1881). Longlands House, Swansea. F.R.C.S.
- H.S., A.H.S., Clin. Asst. Ear, Skin and Throat Depts.
- BROOKS, C. (1885). Gold Hill, Gerrard's Cross, Bucks.
- BROWN, F. G. (1859). 17, Finsbury Circus.
1861. 2nd Year Student, 3rd Coll. Prize.
1862. 3rd Year Student, 3rd Coll. Prize.
- BROWN, G. W. (1890). 10, Westminster Bridge Road.
- BROWN, L. D. (1878). Henley Villa, Ealing.
- BROWN, T. H. (1894). Skopelos, Hunstanton, Norfolk. M.A., M.B., B.C. Cantab.
- BROWNE, E. A. (1863). 39, Rodney St., Liverpool. F.R.C.S. Edin. Lect. on Ophth. Univ. Coll. Liverpool.
- BROWNING, P. R. (1890). Cambra House, Totton, Hants.
- BRUCE, R. M. (1877). Med. Superint., West. Hosp., Seagrave Rd., Fulham.
- BRYAN, F. (1879). Med. Supt. Lond. Co. Asyl., Epsom. M.B. Durh.
- BUCKLEY, T. W. (1877). Thrapston House, Thrapston, Northants.
- BULL, H. A. (1890). The Manor House, Great Haywood, Stafford.

- BULLEN, F. St. J. (1880). 12, Pembroke Road, Clifton, Bristol.
- BULLOCK, H. M. (1879). Tarwood House, South Leigh, Oxon.
- BULSTRODE, H. T. (1881). 4, The Mansions, Earl's Court, and Local Govt. Bd., Whitehall. M.A., M.D. Camb., D.P.H.  
H.P., A.H.P., Clin. Asst. Throat, Skin and Ear Depts.
- BURD, G. V. (1873). Okehampton, Devon.
- BURDEN, H. (1886). Capt. I.M.S. Bengal. F.R.C.S.  
w 1886-7. 1st Year Student, The William Tite Scholarship.  
s 1887. 1st Year Student, 2nd Coll. Prize.  
w 1887-8. 2nd Year Student, 2nd Coll. Prize.  
H.S., A.H.S.
- BURTON, C. F. (1885). 1, Crescent Place, Whitby, Yorks.
- BURY, A. T. (1870). Sheen, Ashbourne, Derbyshire.
- BURY, G. W. F. (1853). Chew Magna, Somers. F.R.C.S.
- BUTLER, G. R. (1877). 31, Carlton Vale, Kilburn.
- BUTTERWORTH, S. (1878). Maj., R.A.M.C.
- BUZZARD, E. F. (1894). 137, Bedford Court Mansions, Bedford Square. M.A., M.B., B.Ch. Oxon.  
w 1897-8. 5th Year Student, the Mead Medal.  
H.P.
- BYERS, D. W. (1845). 1, Summerhill Road, Maindee, Newport, Mon.
- BYHAM, W. L. (1879). Woodlands, Sunbury-on-Thames.
- CADE, H. L. (1880). Albert Villa, 2, Queen's Road, Peckham.
- CAIGER, F. F. (1878). Med. Superint. S.W. Fever Hosp., Stockwell. M.D., B.S., M.R.C.P., Lond.; D.P.H. Cantab.  
w 1879-80. 1st Year Student, 3rd Coll. Prize.  
w 1880-1. 2nd Year Student, 3rd Coll. Prize.  
w 1882-3. 4th Year, the Mead Medal.  
H.S., A.H.S., H.P., A.H.P., R.A.
- CALVERT, J. T. (1882). Capt. I.M.S. Bengal. M.B. Lond.; D.P.H. H.P., H.S., A.H.S.
- CALWELL, W. (1884). 1, College Square, North Belfast. M.A., M.D., M.Ch., R.U.I.
- CAMERON, C. (1858). Lt.-Col., I.M.S. Bengal (retired).
- CAMERON, C. H. H. (1871). Kolassy House, Old Town, Eastbourne. D.P.H. R.A.
- CAMERON, W. J. Ellerslie, Balham Park Road. M.B. Lond.
- CAMPBELL, A. J. (1888). 74, Barcombe Avenue, Streatham Hill.
- CANDLER, G. (1891). Harleston, Norfolk. B.A. Cantab.  
Obst. H.P.
- CANN, R. T. (1880). 3, Marine Terrace, Fowey, Cornwall.  
s 1882. 2nd Year Student, 1st Coll. Prize.  
s 1883. 3rd Year Student, 2nd Coll. Prize.
- CANNOCK, C. W. (1873).
- CAPORN, A. W. (1885). Woodstock, Cape Town.
- CARPENTER, A. B. (1876). Wykeham House, Bedford Park, Croydon. Surrey. M.A., M.B. Oxon.  
H.P., A.H.P., H.S.
- CARPENTER, E. (1861). Trevathan, Albemarle Road, Beckenham, Kent.
- CARPENTER, G. (1878). 12, Welbeck Street, Cavendish Square. M.D. Lond.; M.R.C.P. Phyn. to Out-Patients, Evelina Hospital.  
w 1880-1. 1st Year Student, 3rd Coll. Prize.  
s 1881. 1st Coll. Prize.  
w 1881-2. 2nd Year Student, 3rd Coll. Prize; Prosecutor's Prize.
- CARPENTER, J. W. (1853). Winchet Hill, Goudhurst, Kent. M.D. St. And.
- CARR-WHITE, P. (1889). Capt. I.M.S. Madras. M.B., C.M. Edin.
- CARSTAIRS, H. J. (1884). Chiswell Lodge, Worcester Park, Surrey.  
Clin. Asst. Throat Dept.
- CARTER, A. W. (1889). M.B., C.M. Edin.
- CARTER, W. (1863). 78, Rodney Street, Liverpool. M.D., B.Sc., LL.B., F.R.C.P. Lond.; F.R.C.S.I.; J.P.
- CARTER, W. R. (1886). 23, Jury St., Warwick. M.A., M.B., B.C. Cantab. R.A., S.O.C.
- CARVER, J. R. (1890). The Meadows, Alderley Edge, Manchester. B.A., M.D., B.C. Cantab.  
Clin. Asst. Skin Dept.
- CASTLE, H. (1874). 99, The Mall, Newport, I.W. M.B. Lond.  
w 1874-5. 1st Year Student, 2nd Coll. Prize.  
s 1875. 3rd College Prize.  
w 1876-7. Physical Society's 3rd Year's Prize.  
H.S., A.H.S., R.A.
- CAUDLE, A. W. W. (1856). Henfield, Sussex.  
1858. Clinical Medicine, Prize.
- CAUDLE, C. E. (1858). Nazira, Assam, India.
- CAUDWELL, E. (1886). Harleston, Norfolk.
- CAVE-BROWN-CAVE, H. W. (1891). Lifford Hall, King's Norton, Worc.
- CHAFFERS, E. (1860). Broomfield, Keighley, Yorks. F.R.C.S.
- CHALDECOTT, C. W. (1848). Parkside, Dorking, Surrey.  
1849. Materia Medica, 2nd Prize; 1st Year Student, Scholarship.  
1850. Surgery, Prize.  
1851. Physiology, Prize; Physical Society's Essay, Treasurer's Prize; General Proficiency, Treasurer's Silver Medal.
- CHALDECOTT, J. H. (1880). 2, Lancaster Road, Hampstead.

- CHAMBERS, J. M. (1891). Craigside, Llandudno.
- CHANCE, R. F. (1887). 22, Carlton Crescent, Southampton. Obst. H.P.
- CHAPMAN, G. W. (1884). Marian House, Edgar Road, Cliftonville, Margate.
- CHARLES, J. R. (1895). Pelsall Hall, Walsall, Staffs. B.A., M.B., B.C. Cantab. H.P.
- CHARPENTIER, A. (1879). Rathmines House, Uxbridge, Middlx. M.D. Durh. 1882-3. 4th Year, The Mead Medal Exam., Special Mention.
- CHARSLEY, R. S. (1888). The Barn, Slough, Bucks. B.A. Oxon.
- CHEVALLIER, C. L. (1889). 77, Park Ridings, Mayes Road, Wood Green.
- CHEVERS, H. L. G. (1879). Capt. R.A.M.C.
- CHILD, G. A. (1891). Selsey, Sussex.
- CHISHOLM, M. (1885). Halifax, Nova Scotia, Canada.
- CHOPPING, A. (1890). R.A.M.C.
- CHRISTIE, F. (1886).
- CHURCHILL, F. (1867). 4, Cranley Gardens, Queen's Gate. M.D., C.M. Edin.; F.R.C.S. Surg. Registr.
- CLAPTON, E. (1850). 41, Eltham Rd. Lee. M.D., F.R.C.P., F.R.C.S. 1851. 1st Year Student, 1st Scholarship; Descriptive Anatomy Prize; Chemistry, Prize. 1852. 2nd Year Student, Scholarship; Physiology, Prize; Materia Medica, Prize; Botany, Prize. 1853. 3rd Year Student, Scholarship; Clinical Medicine, Treasurer's Prize; Physical Society's Essay, Treasurer's Prize. 1854. Ophthalmic Reports, Governor's Prize; Clinical Medicine, Mr. N. Smith's Prize. Physician and Lecturer on Materia Medica.
- CLAPTON, W. (1854). 27, Queen Street, Cheapside. F.R.C.S. 1855. Materia Medica, Prize. 1856. Clinical Medicine, Prize.
- CLARK, F. (1868). Crosby House, Gt. St. Helens, Bishopsgate.
- CLARK, H. J. (1887). High Street, Swanage, Dorset.
- CLARKE, A. (1855). Stock, Ingatestone, Essex.
- CLARKE, A. W. V. (1890). 5, Selhurst Road, South Norwood.
- CLARKE, J. M. (1884). 28, Pembroke Road, Clifton, Bristol. M.A., M.D. Cantab., F.R.C.P. Physn. and Pathol. Bristol Gen. Hosp., Prof. of Path. Bristol Med. Sch. H.P.
- CLARKE, J. T. (1884).
- CLARKSON, F. C. (1880). Capt. I.M.S. Bengal.
- CLARKSON, J. W. (1870). Lt.-Col. I.M.S. Bombay. H.P., H.S.
- CLEAVER, W. F. (1879). Clarence Street, Port of Spain, Trinidad.
- CLEGHORN, G. (1868). Blenheim, Marlboro', New Zealand. M.D. Durh. H.S.
- CLEMENTS, W. H. (1879).
- CLEVE, R. P., Constitutional Club, Northumberland Avenue.
- CLIFTON, G. (1866). 48, London Road, and 7, Bowling Green Street, Leicester. J.P.
- CLOWES, J. P. (1884). Asst. Med. Off. Co. Asyl., Prestwich, Manchester.
- CLUTTON, H. H. (1872). 2, Portland Pl. M.A., M.B., M.C. Cantab.; F.R.C.S. Surgeon, St. Thomas's Hospital. Joint Lect. on Surgery, Res. Asst. Surg., Surg. Reg., H.S.
- COAD, J. E. (1886). Surg. R.N. M.B. Durh.
- COATES, W. H. (1868). Hucknall Torkard, Notts.
- COBB, E. H. (1891). Royal Victoria Hosp., Folkestone. H.S., A.H.S., Clin. Asst. Skin Dept.
- COBBETT, L. (1886). Fairfield, Weybridge. M.A., M.B. Cantab.; F.R.C.S.; late Demonstr. of Pathol. Univ. Camb. H.S., A.H.S., H.P.
- COCKELL, F. E., Jun. (1872). Holly Lodge, Forest Road, Dalston. Merchant Taylors' Scholar.
- COGILL, H. (1886). The Crossways, Cranes Park Road, Surbiton.
- COHEN, A. A. (1877). 61, Darlinghurst Road, Sydney, N.S. Wales. M.D. Aberd.
- COLBY, G. (1857). Brawby Park, Pickering, Yorks.
- COLBY, W. T. (1848). The Mount, Malton, Yorks. M.D. St. And.; J.P.
- COLEMAN, P. (1884). Riemore Lodge Clacton-on-Sea. M.B., B.S. Durh.
- COLLCUTT, A. M. (1886). 2, St. Peter's Place, Brighton. M.A., M.B., B.C. Cantab. H.P. Clin. Asst. Ear Dept.
- COLLIER, H. (1882). 21, South Quay, Gt. Yarmouth. M.D. Brux.
- COLLIER, M. P. M. (1874). 133, Harley St., Cavendish Sq. M.S., M.B. Lond.; F.R.C.S. H.S., A.H.S., A.H.P.
- COLLIER, S. R. (1889). Somers, Wimbledon Hill, Wimbledon. M.D., M.Ch. R.U.I.
- COLLIER, W. A. (1892). 36, Gt. Smith St., Westminster.
- COLLINGWOOD, P. H. (1889). Lt. R.A.M.C.



- COLLIS, E. L. (1893). Scotland House, Stourbridge. B.A., M.B., B.Ch. Oxon.  
w 1895-6. Bristowe Medal.  
Obst. H.P.
- COLMAN, G. M. H. (1877). Maj. M.R.M.C. (retired). M.A., M.B. Cantab.
- COLMAN, W. S., 22, Wimpole Street. M.D. Lond., F.R.C.P.  
Asst. Physn. Demonstr. of Morbid Anatomy. Lecturer on Forensic Med., Teacher of Pract. Med., St. Thomas's Hospital.
- COLSTON, J. (1855). 189, Mill Road, Cambridge.
- CONFORD, G. J. (1892). South Eastern Fever Hosp., New Cross. B.A., M.B., B.Ch. Oxon.  
H.P., H.S., A.H.S., Clin. Asst. Elect. Dept.
- CONNER, J. R. T. (1888). 413, Kingsland Road. B.A.R.U.I., M.D., M.Ch.
- COOK, P. I. (1873). Byfield, 5, High St., Bromley, Kent. M.D. Brux.
- COOK, R. (1864). Leiston, Suffolk. M.D. Glasg.
- COOK, S. B. (1882). Askam-in-Furness, Lancs. B.A., Cape of Good Hope; M.D. Lond.  
s 1883. 1st Year Student, 2nd Coll. Prize. A.H.S., A.H.P., Clin. Asst. Skin Dept.
- COOK, T. D. (1880). Glendon, Torquay. M.B., C.M. Glasg.
- COOKE, C. W. (1883). 129, Walm Lane, Cricklewood. M.D. Lond.  
Merchant Taylors' Scholar.  
w 1883-4. 1st Year Student, 1st Entrance Science Scholarship.  
H.P., A.H.S., Clin. Asst. Throat and Ear Depts.
- COOKE, J. (1853). Tettenhall, Wolverhampton. M.B. Lond.; F.R.C.S. 1855. Comparative Anatomy, Prize.
- COOKE, J. B. (1874). H.M. Prison, Borstal, Kent.
- COOKSON, H. (1881). Maj., I.M.S. Bengal. (Retired). F.R.C.S.
- COOMBE, A. T. (1871). 81, Clarendon Road, Notting Hill.
- COOMBE, C. F. (1882). 459, Crookes Moor Road, Sheffield.
- COOPER, A. E. (1898). 41, Sloane Sq. M.D.
- COOPER, G.F. (1878). Brit. Naval Hosp., Valparaiso, Chili, South America. M.B., B.S. Lond.  
H.S., A.H.S., A.H.P., R.A.
- COOPER, H. J. (1886). Belmont, Lyme Regis, Dorset. M.A., M.B., B.C. Cantab.  
H.P., Clin. Asst. Ear and Skin Depts.
- COOPER, H. S. (1886). Brightlingsea, Essex.  
s 1887. 2nd Year Student, 2nd Coll. Prize.
- COPELAND, W. H. L. (1885). 59, Warwick Road, Earl's Court. M.A., M.D., B.C. Cantab.  
H.P.
- COPEMAN, A. H. (1890). Sunnyside, Littleport, Cambs. B.A. Cantab.
- COPEMAN, S. M. (1883). Local Govt. Board, Whitehall, and 19, Cromwell Crescent, Kensington. M.A., M.D. Cantab.; F.R.C.P., D.P.H. Lecturer on Pub. Health, Westminster Hosp. Demonstrator of Physiology and Morbid Histology.
- COPP, C. J. (1897). 96, Wellesley St., Toronto. M.D., C.M. Trin. Coll., Toronto.
- CORBETT, T. (1857). Severn House, Droitwich, Worc.
- CORBIN, E. K. (1870). 8, Saumarez Street, St. Peter Port, Guernsey.
- CORBIN, M. A. B. (1832). 9, Saumarez Street, St. Peter Port, Guernsey. F.R.C.S.  
1834. Cheselden Medal.
- CORNER, E. M. (1895). B.A., M.B., B.C. Cantab.  
H.S., A.H.S.
- CORNEY, B. G. (1868). Suva, Fiji.
- CORNWALL, J. W. (1892). Surg.-Lt. I.M.S. M.A., M.B., B.C. Cantab.  
Clin. Asst. Throat Dept.
- CORY, I. R. (1878). Shere, Guildford, Surrey.
- CORY, R. (1867). 73, Lambeth Palace Rd. M.A., M.D. Cantab., F.R.C.P., Joint Lect. on For. Med. Physn. Vacc. Dept.  
1870. Physical Society's 3rd Year's Prize. H.S., Asst. Obst. Phys.
- COULTER, W. (1881). 2/2, Harington Street, Calcutta, India. M.D., M.Ch.R.U.I.
- COUSINS, J. W. (1853). Riversdale, Kent Rd., Southsea. M.D. Lond.; F.R.C.S., J.P.  
1855. Surgery, Prize; Midwifery, Prize.  
1856. Clinical Medicine, Prize; Surgery and Surgical Anatomy, Cheselden Medal.
- COWBURN, A. D. (1889). Union Club, Trafalgar Sq. M.D. Brux.  
Clin. Asst. Throat Dept.
- COWELL, A. R. (1887). Bath College, South End Rd., Hampstead, M.A., M.B., B.C. Cantab.
- COWEN, E. I. (1875). Cleveland Villa, Thornaby-on-Tees.
- COWEN, E. J. (1892). Chapagure, Nalgrakata, Post Office, Jalpaiguri, Bengal, India. M.B., B.S. Durh.

- COWEN, P. (1861). 47, Ingleby Road, Upper Holloway. M.D. Durh.; D.P.H. Camb.  
 1862. 1st Year Student, 2nd Coll. Prize.  
 1863. 2nd Year Student, 2nd Coll. Prize.  
 1864. 3rd Year Student, 2nd Coll. Prize.
- COWEN, T. P. (1884). 47, Ingleby Rd., Upper Holloway. M.D., B.S. Lond.  
 w 1884-5. 1st Year Student, Half 1st and 2nd Coll. Prizes.  
 s 1885. 1st Year Student, 2nd Coll. Prize.  
 w 1885-6. 2nd Year Student, 1st Coll. Prize.  
 s 1886. 2nd Year Student, 1st Coll. Prize.  
 w 1886-7. 3rd Year Student, 2nd Coll. Prize.  
 H.P., H.S., A.H.S., Clin. Asst. Ear Dept.
- COWEN, W. A. D. (1873). Maj. R.A.M.C.
- COWIE, A. M. (1890). Bank Buildings, Hong Kong, China. M.B., C.M. Aberd.
- COWIE, R. A. (1890).
- COX, A. E. (1887). 36, Hoghton Street, Southport. M.B., C.M. Edin.
- COX, A. E. (1881). 58, High St., and Upton Rd., Watford, Herts.
- COX, J. L. C. (1879). St. Ann's Bay, Jamaica.
- COXWELL, C. F. (1879). Brighton, Melbourne, Australia. M.D. Cantab., M.R.C.P., D.P.H.  
 1880. 4th Year Student, the Mead Medal. H.P.
- CRANSTOUN, C. B. (1881). 15, Broad Street, Ludlow, Salop. M.B. Durh.
- CRANSTOUN, G. (1881). 3, Brand Lane, Ludlow, Salop. M.B. Durh.
- CRAWFORD, G. B. (1885). South Street, New Ross, Co. Wexford. M.D., M.S., R.U.I.
- CREIGHTON, C. 34, Gt. Ormond Street. M.A., M.D., C.M. Aberd.; M.A. Cantab.  
 Surg. Registr., 1873.
- CREIGHTON, E. (1878). Tankerville House, Greyhound Lane, Streatham Common.
- CRICK, A. (1885).
- CRICK, S. A. (1874). Barrow-on-Trent, near Derby. M.B., M.S. Durh.  
 w 1875-6. Prosecutor's Prize.  
 w 1876-7. 3rd Year Student, 3rd Coll. Prize. A.H.P., A.H.S.
- CRICK, W. T. (1877). Houghton House, Stoney Gate, Leicester.
- CRISP, E. H. (1883). The Lawns, Balham Hill. B.A. Cantab.  
 Clin. Asst. Skin, Throat, and Ear Depts.
- CRISP, T. (1874). M.B. Lond.
- CROFT, J. (1850). 6, Mansfield Street, Cavendish Sq. F.R.C.S., Consulting Surgeon St. Thomas's Hospital.  
 Special Lecturer on Clinical Surgery, Surgeon, Lecturer on Practical Surgery, and Assistant Demonstrator of Anatomy.
- CROKER, E. U. (1891). Claremont House, Seaford.
- CROSBY, H. T. (1880). 19, Gordon Sq. M.A., M.B., B.C. Cantab.
- CROSBY, Alderman T. B. (1850). 19, Gordon Sq. M.D. St. And.; F.R.C.S.  
 1851. Physiology, Prize;  
 Descriptive Anatomy, Prize;  
 Medicine, Prize;  
 Surgery, Prize.  
 1852. Physiology, Prize;  
 Forensic Medicine, Prize;  
 Practical Chemistry, Prize;  
 Surgery and Surgical Anatomy, *Bronze Cheselden Medal*;  
 Comparative Anatomy, Prize.  
 H.S. and Demonstr. of Anat.
- CROSS, E. J. (1883). St. Neots, Hunts. D.P.H. Cantab.
- CROSS, G. (1887). Burgh, Lincolnsh.
- CROSS, J. (1888).
- CROSSMAN, J. (1870). 331, Wandsworth Road. M.D. Durh.  
 1871. Physical Society's 1st Year's Prize.  
 1872. Physical Society's 2nd Year's Prize.  
 1873. Physical Society's 3rd Year's Prize. H.S.
- CROUCH, H. C. (1890). 55A, Welbeck Street. Anaesthetist, St. Thomas's Hospital.  
 w 1890-1. 1st Year Student, 2nd Entrance Science Scholarship.  
 H.S., A.H.S.
- CROUDACE, J. H. (1883). Fordgate House, Fordgate, Stafford.
- CROWDY, F. D. (1881). Belvedere House, Torquay. M.A., M.D. Oxon  
 w 1884-5. 4th Year Student, the Mead Medal.  
 H.S., A.H.S., H.P.
- CROXFORD, W. C. (1883). Havelock House, Park Road, Peterborough.
- CUFF, A. W. (1891). 263, Glossop Rd., Sheffield. B.A., M.B., B.C. Cantab., F.R.C.S.  
 H.S., A.H.S., Clin. Asst. Throat Dept.
- CULLINGWORTH, C. J. 14, Manchester Square. M.D., Hon. D.C.L. Durh.; F.R.C.P.; Obst. Phys. and Lect. on Dis. of Women, St. Thomas's Hospital. Examiner in Midwifery, &c., Univ. Camb.  
 Lect. on Midwifery.
- DADACHANJI, E. R. (1880). Baroda, India.
- DALGADO, D. G. (1879). Savantvadi, India. M.D. Brux.
- DANIEL, A. W. (1895). The Silver Birches, Epsom. B.A., M.B., B.C. Cantab.
- DANIEL, E. G. C. (1892). 28, Station Road, Epsom. B.A., M.B., B.C. Cantab.  
 H.P.
- DANIEL, R. N. (1886). 13, Nevern Square, South Kensington.
- DANVERS, H. (1882). Villa Mostaccini, Bordighera, Italy (Winter). Baths of Lucca (Summer).



- DARBYSHIRE, D. E. (1892). York, West Australia. M.B., B.Ch. Vict.
- DARKER, G. F. (1887). 21, Palace Square, Upper Norwood.
- DARTER, G. B. S. (1885). Victoria West, Cape Colony. M.B., B.S. Durh.
- DAVIDSON, A. D. (1872). 9, Picton Place, St. Helen's Road, Swansea. M.A., M.D. Cantab. Opth. Asst.
- DAVIDSON, G. (1888). Gayndale Hospital, Queensland.
- DAVIES, A. O. (1886). Penrallt, Machynlleth, Montg.
- DAVIES, D. S. (1874). Public Health Offices, 40, Prince Street, Bristol, and 60, Oakfield Road, Clifton. (Not in private practice.) M.B., M.D. (State Med.) Lond.; D.P.H. Cantab.
- 1875-6. Physical Society's 1st Year's Prize. H.S., A.H.S., A.H.P.
- DAVIES, S. H. R. (1888). 24, Monk St., Abergavenny, N. Wales.
- DAVIES, W. J. E. (1891). St. Luke's Infirmary, Cale Street, Chelsea. Clin. Asst. Skin Dept.
- DAVIS, E. H. (1870). West Hartlepool. J.P. R.A.
- DAVIS, G. W. (1880). Sunnyside, Main Road, Sidcup, Kent. M.D., B.S. Durh.
- DAVIS, H. E. (1882). 619, Green Lanes, Harringay.
- DAVIS, H. J. (1889). 9, Norfolk Crescent, Hyde Park, and New University Club, M.A., M.B., B.C. Cantab., M.R.C.P. H.S., A.H.S. Clin. Asst. Ear Dept.
- DAVIS, R. (1889). Darrickwood, Orpington, Kent.
- DAWNAY, A. H. P. (1892). 24, Upper Phillimore Place, Kensington. Opth. H.S. Clin. Asst. Skin Dept.
- DAWSON, W. J. H. (1888). Ashley, Kent Road, Swindon.
- DAY, E. J. (1871). Dorchester.
- DAY, W. H. (1843). Surrey Street, Norwich.
- DEANE, E. (1873). Downs, Bathpool, Taunton (retired).
- DE CAUX, H. L. (1881). The Eagles, Gregory Boulevard, Nottingham.
- DECK, J. F. (1859). Ashfield, Sydney, N.S. Wales. M.D. St. And.
1860. 1st Year Student, 1st Coll. Prize.
1861. 2nd Year Student, 1st Coll. Prize Physical Society's Prize.
1862. 3rd Year Student, 1st Coll. Prize Physical Society's Prize; Cheselden Medal; Treasurer's Gold Medal.
- DE GRUCHY, C. W. (1881). 30, High Street, Caerleon, Monmouthsh.
- DE JERSEY, W. B. (1886). Netherton, Waterden Road, Guildford. B.A., M.B., B.C. Cantab. A.H.P., Clin. Asst. Ear Dept.
- DE LOM, H. A. (1880). Capt. R.A.M.C.
- DENNE, T. V. de. (1864). Cradley Heath, Staffordsh.
- DE VILLIERS, J. H. (1890). 104, Cromwell Road.
- DEWES, F. J. (1880). Capt. I.M.S.. Madras.
- DE WET, P. C. (1882). Pretoria, Transvaal, S. Africa.
- DEWHURST, J. H. (1887). Chipping Campden, Glouc. M.A., M.B., B.C. Cantab. H.S., A.H.S.
- DE WOLFSON, L. E. G. (1877). 26, St. John's Hill, Shrewsbury.
- DICKENS, C. H. (1888). York House, 51, Albert Bridge Rd., Battersea Pk., S.W. M.B., B.S. Durh.
- DICKERSON, S. H. (1851). Lieut.-Col. R.A.S.C. (retired).
- DICKINSON, W. G. (1871). Elm Bank, West Hill, Putney Heath. D.P.H.
- DICKSON, T. H. (1885). Custom House, Lr. Thames Street, and 27, Scarsdale Villas, Kensington. M.A., M.B., B.C. Cantab. A.H.P., Clin. Asst. Throat Dept.
- DILON, R. W. (1888). 39, Allfarthing Lane, Wandsworth.
- DIXON, H. L. (1888). Asst. Med. Off. St. Andrew's Hosp., Northampton. M.A., M.B., B.C., D.P.H. Cantab.
- DIXON, W. E. (1890). Elsadene, Benson Rd., Forest Hill. M.D. (State Med.), B.S., B.Sc. Lond. D.P.H. Camb.
- w 1890-91. 1st Year Student, 1st Entrance Science Scholarship.
- s 1891. 1st Year Student, 2nd Coll. Prize. H.P., Clin. Asst. Electr. Dept. Salters' Company Research Fellow.
- DOBSON, A. (1889). 115, Bath Street, Ilkeston, Derby.
- DOBSON, N. C. (1864). Avonmore, Sleyd Park, Bristol. F.R.C.S., Emer. Prof. Surg. Bristol Univ. Coll., Cons. Surg. Bristol Gen. Hosp.
1865. 1st Year Student, 1st Coll. Prize.
1866. 2nd Year Student, 1st Coll. Prize.
1867. 3rd Year Student, 2nd Coll. Prize; A Prize and Hon. Cert. for Proficiency in Surgery and Surgical Anatomy at the Cheselden Medal Examination; Treasurer's Gold Medal.
- H.S.
- DODD, G. H. (1878). Portswood Road, Southampton. B.A. Cantab.

- DOMINY, G. H. (1892).
- DONKIN, H. B. (1868). 108, Harley Street, Cavendish Sq. M.A., M.D. Oxon.; F.R.C.P. H.P.
- DORMAN, M.R.P. (1888) 9, Norfolk Crescent, Hyde Park. M.A., M.B., B.C., D.P.H. Cantab. H.P., Clin. Asst. Throat Dept.
- DOUBLEDAY, J. (1848). Melton Mowbray, Leicester (retired).
- DOUDNEY, G. H. (1876). St. Lawrence, Wainfleet, Linc. M.B. Durh.
- DOUGLAS, A. L. (1878). 163, Westbourne Terr., Hyde Park.
- DOWDING, E. F. C. (1892). Clevedon House, New Road, Chatham.
- DRAKE, C. H. (1857). Brixton Hill. 1858. 2nd Year Student, Treasurer's 1st Prize; Clinical Medicine, 2nd Prize. 1859. Surgery and Surgical Anatomy, Cheselden Medal; General Proficiency, Treasurer's Medal.
- H.S.
- DRAKE, T. (1857). Red House, Winchester. 1858. 2nd Year Student, Treasurer's 1st Prize. 1859. 2nd Year Student, Pre-ident's Prize. 1860. 3rd Year, 1st Coll. Prize; Surgery and Surgical Anatomy, Cheselden Medal; General Proficiency, Treasurer's Medal.
- DRAKE, W. E. (1888). Red House, Winchester. M.A., M.B., B.C. Cantab.
- DRESSER, A. K. (1872).
- DRINKWATER, T. W. (1871). Chemical Laboratory, 5, Teviot Place, Edinburgh. Lect. on Chem. Sch. of Med' Edin.; Exam. in Chem. and Pub. Health R.C.S. Edin.
- DRUITT, A. B. (1880).
- DUFF, J. (1885). 5, Abbey St., Abbey Sq., Chester. M.D., C.M. Glasg.; M.R.C.P. Clin. Asst. Throat Dept.
- DUKES, C. (1864). Sunnyside, Rugby, Warwickshire. M.D., B.S. Lond., M.R.C.P., J.P.; Physician to Rugby School, and Senior Physician to Rugby Hospital. H.S.
- DUKES, T. A. (1885). 16, Wellesley Road, Croydon, Surrey. M.B., B.Sc. Lond. H.P.
- DUMERGUE, H. W. (1884). 16, Clarges Street, Mayfair. M.A., M.D., B.C. Cantab.
- DUNCAN, H. (1882). 11, Bolton Street, Piccadilly. B.A. Cantab., M.B. Lond. w 1882-3. 1st Year Student, 1st Entrance Science Scholarship, 1st Coll. Prize. w 1883-4. 2nd Year Student, Prosector's Prize. A.H.S. Clin. Asst. Skin Dept.
- DUNCAN, W. (1876). 6, Harley St., Cavendish Sq. M.R.C.P. Lond., M.D. Brux., F.R.C.S.; Obstetric Physician to, and Lecturer on Obstetric Medicine and Practical Midwifery at, Middlesex Hospital. Sen. Phys. Chelsea Hospital for Women. Examiner in Midwifery, Examining Board in England. w 1876-7. 1st Year Student, The William Tite Scholarship. s 1877. 1st Coll. Prize. w 1877-8. 2nd Year Student, The Musgrove Scholarship; 2nd Year Physical Society's Prize. s 1878. 1st Coll. Prize. w 1878-9. 2nd Tenure Musgrove Scholarship; 1st Coll. Prize; 3rd Year Physical Society's Prize; Grainger Testimonial Prize. 1880. 4th Year Student, The Cheselden Medal; The Treasurer's Medal. w 1881-2. The Solly Medal and Prize. H.S., R.A.
- DUNN, E. D. (1883). Dawson City, Klondike, Canada.
- DUNN, J. E. (1878). 24, Stephenson Terrace, Preston, Lanc.
- DUNSTAN, W. R., Queen Anne's Mansions. M.A., Oxon, F.R.S. Lecturer on Chemistry.
- DURANT, R. J. A. (1876). Capt. R.A.M.C.
- DURRANT, C. E. (1891). Avondale, Kingston Hill. Clin. Asst. Ear Dept.
- DURRANT, T. A. (1883). 42, High Street, Market Harborough, Leic. Clin. Asst. Skin and Ear Depts.
- DURSTON, J. C. (1888). 67D, Upper Tulse Hill. Surg. R.N.
- DUTTON, A. S. (1884).
- DYBALL, B. (1890). Hosp. for Sick Children, Gt. Ormond St. M.B., B.S. Lond.; F.R.C.S. w 1891-2. 1st Year Student, 1st College Prize. w 1894-5. 4th Year Student, The Cheselden Medal. 1896. Beaney Scholarship. H.S., A.H.S., Clin. Asst. Ear Dept.
- DYKE, T. J. (1836). Council Offices, Merthyr-Tydvil. F.R.C.S.
- EARLE, H. E. L. (1878). Surg. R.N. (retired).

- EASTON, T. (1883). Hanover House, Stranraer, Wigtownshire. M.A., M.D., C.M. Edin.
- ECCLES, C. H. (1883). Priestgate House, Nafferton, Yorks.  
w 1884-5. 2nd Year Student, 1st Coll. Prize.  
s 1885. 2nd Year Student, 1st Coll. Prize.  
w 1885-6. 3rd Year Student, 1st Coll. Prize.  
s 1886. 3rd Year Student, 1st Coll. Prize.  
H.P.
- ECCLES, R. B. (1885). Bridge House, Great Driffeld, Yorks.
- EDDOWES, J. H. (1842). Burleigh Fields, Loughborough, Leic. M.D. Glasg.  
1843. Comparative Anatomy, Prize.  
1844. Medical Medical Reports, Silver Medal.  
1845. Clinical Medicine, Prize.
- EDDOWES, W. D. (1844). Stamford, Linc. Cons. Surg. Stamford Infirm.  
1845. Descriptive and Surgical Anatomy, Prize.
- EDDOWES, W. D., Jun. (1877). 20, St. George's Square, Stamford, Lincs.
- EDGE, F. 54, Darlington Street, Wolverhampton. M.D., B.S., B.Sc. Lond.; F.R.C.S., M.R.C.P.
- EDMONDS, C. G. (1862). Manor House, Manor Park, Streatham.
- EDMUNDS, W. (1871). 75, Lambeth Palace Road. M.A., M.B., M.C. Cantab.; F.R.C.S. Surg. to Out-Patients, Evelina Hosp.  
H.P., R.A., H.S.
- EDWARDS, F. W. (1887). Camp Field, Overhill Road, Forest Hill.
- EDWARDS, H. H. J. (1893).
- EDWARDS, V. (1842). The Villa, Shottingham, Woodbridge, Suffolk (retired).
- EDYE, J. S. (1880). Capt. R.A.M.C.
- ELLIOTT, A. E. (1892). M.A. Cantab.
- ELLIOTT, J. W. (1854). 5, Manor Road, Forest Hill (retired).  
Late Surg. Dentist.
- ELLIS, C. I. (1896). 33, Stormont Road, Clapham Common. M.B. C.M. Aberd.
- ELLIS, F. H. (1895). Broxmore, Woking. B.A., M.B., B.C. Cantab.
- ELLIS, H. H. (1880). Carbis Water, Lelant, Cornwall.
- ELLIS, J. (1854). Cobourg St., Fratton, Portsmouth, and Anaheim, Los Angeles Co., California. M.D. Brux.; M.R.C.P.I.  
H.S.
- ELLIS, R. K. (1884). Westgate, Peterborough. M.A., M.B., B.Ch. Oxon.  
Jun. and Sen. Obst. H.P.
- ELLIS, W. C. (1884). Tollerton, Easingwold, Yorks.
- ELWIN, C. J. (1853). 6, City Road. 1855. Practical Midwifery, Prize.
- EMBLETON, D. (1833). 19, Claremont Place, Newcastle-on-Tyne. (retired.)  
M.D. Durh., M.D. Pisa, F.R.C.P. Cons. Phys. Newc. Ry. Infirm.
- EMIN, M. (1891). 132, Elgin Avenue, Maida Vale. M.B., C.M. Edin.
- EMSON, A. (1869). Dorchester.
- ENGLAND, G. F. A. (1883). 12, Southgate Street, Winchester. B.A., M.D., B.C. Cantab.
- ENGLAND, H. (1888). The Infirmary, Tiverton, N. Devon. B.A. Cantab.
- ETHERIDGE, C. (1860). Seasalter, Whitstable, Kent.
- EVANS, J. T. (1825). M.D. St. And.
- EVE, R. W. (1851). 101, Lewisham High Road. M.B. Aberd.
- EVELYN, W. A. (1882). 24, Mickle-gate, York. M.A., M.D. Cantab.
- FAIRBAIRN, J. S. (1893). St. Thomas's Hospital. B.A., M.B., B.Ch. Oxon.  
Obst. Tutor and Registrar.  
H.P. Obst. H.P.
- FAIRBANK, J. (1864). 18, George St., Hanover Square.  
1866. 2nd Year Student, Prosector's Prize.
- FANNING, W. J. (1892). 1, St. Faith's Place, Norwich.
- FARAKER, W. C. (1860). Glenview, Peel, Isle of Man.
- FARRANT, S. (1857). North Street House, Taunton.
- FAULDS, H. (1886). 141, Duke St., Fenton, Stoke-on-Trent.
- FAWSETT, F. (1882). 83, High Street, Lewes, Sussex. M.B., B.S. Lond.  
w 1883-4. 1st Year Student, 2nd Entrance Science Scholarship. The William Tite Scholarship.  
s 1884. 1st Year Student, 1st Coll. Prize.  
w 1884-5. 2nd Year Student, The Musgrove Scholarship.  
w 1885-6. 3rd Year Student, 2nd tenure of Musgrove Scholarship, with 3rd Coll. Prize.  
w 1886-7. 4th Year Student, The Cheselden Medal, Treasurer's Gold Medal.  
R.A., H.S., A.H.S.
- FAWSETT, R. (1887). Lieut. R.A.M.C.
- FELL, W. (1877). Wellington, New Zealand. M.D. Oxon.  
H.P., A.H.P., A.H.S., R.A.
- FENTON, H. A. H. (1875). 1, Cumberland St., Pimlico. M.D. Brux.  
w 1875-6. 1st Entrance Science Scholarship.  
s 1876. 1st Year Student, 1st Coll. Prize.
- FENTON, T. G. (1894). Castletown House, Easky, Co. Sligo.
- FENWICK, P. C. (1889). Christchurch, New Zealand. M.B. Lond. Surg. Christchurch Hosp.  
Sen. and Jun. Obst. H.P.
- FERNANDES, A. S. Kadur District, Chickmaglore, India. M.R.C.P. Edin.

- FERNIE, W. T. (1850). Kimbolton, The Lees, Folkestone. M.D. Durham. R.A.
- FIELDER, S. (1886). Gosford, New South Wales.
- FIELDING, J. (1868). Bethel Street, Norwich, M.D. Vict. Univ. Canada. R.A.
- FINCHAM, W. S. (1884). 53, Kew Bridge Road, Brentford, Middx.
- FINUCANE, M. I. (1881). Colonial Hosp., Suva, Fiji.
- FISH, C. E. (1889). B.A., M.B., B.C. Cantab.
- FISHER, J. (1888). D.S.O., Capt. I.M.S. Bengal. B.A., M.B., B.C. Cantab. Ophth. H.S.
- FISHER, J. H. (1886). 34, Queen Anne Street, Cavendish Square. M.B., B.S. Lond., F.R.C.S. Asst. Ophthalmic Surgeon. Demonstr. of Anat. w 1887-8. 1st Year Student, The William Tite Scholarship. s 1888. 1st Year Student, 1st Coll. Prize. w 1888-9. 2nd Year Student, The Musgrove Scholarship. w 1889-90. 3rd Year Student, 2nd tenure of Musgrove Scholarship, with 1st Coll. Prize. s 1890. 3rd Year Student, 1st Coll. Prize. w 1890-1, 4th Year Student. Treasurer's Gold Medal. Sen. and Jun. Obst. H.P., H.S., A.H.S., Clin. Asst. Ear Dept., Ophth. H.S.
- FISHER, T. (1872). Mulberry House, Gt. Eccleston, Garstang, Lanc. J.P. s 1873. 2nd Year Student, 2nd Coll. Prize. w 1874. 2nd Year Student, 3rd Coll. Prize. w 1875. 3rd Year Student, Surgery and Surgical Anatomy, Prize.
- FISHER, T. E. H. (1885). 272, Wightman Road, Hornsey.
- FITZGERALD, G. C. (1882). Med. Superint. Kent Co. Asyl., Chartham Down, Canterbury. M.D., B.C. Cantab.
- FITZGERALD, W. A. (1879). Monte Carlo, Monaco. A.B., M.D. Dublin.; F.R.C.S.I.
- FITZ-HENRY, G. W. (1880). Amberley, North Canterbury, New Zealand.
- FLEGG, F. A. M. (1886). George Lane, Woodford, Essex.
- FLETCHER, G. (1869). 60, Southwood Lane, Highgate. B.A., M.D. Cantab.
- FLETCHER, W. B. (1859). Fleet Surg. R.N. (retired).
- FLOYER, F. A. (1880). Mortimer, Berks. B.A., M.B. Cantab. Demonstr. of Pract. Surg.
- FOLEY, C. N. (1878). Darwin Harbour, Falkland Islands East.
- FONMARTIN, H. de (1875). Vue, Loire Inférieure, France. M.D. Paris.
- FOOKS, W. P. (1888). Med. Superint. Brentford Union Infirmary, Isleworth. M.A., M.B., B.C. Cantab. H.P.
- FOOTNER, E. (1855). Lt.-Col. R.A.M.C. (retired). M.D., C.M. Aberd.
- FORD, A. V. (1872). South View Lodge, Kent Rd., Southsea.
- FORD, T. A. V. (1880). Haileybury College.
- FORDE, T. A. M. (1885). 21, Clarence Parade, Southsea. H.S., A.H.S., Clin. Asst. Skin and Throat Depts.
- FORRESTER, W. (1894). Gurgaom, Delhi, Punjab, India.
- FORT, T. (1873). Falcon House, King Street, Oldham.
- FORWARD, F. E. (1884). Antigua, W. Indies. F.R.C.S. H.P., Ophth. H.S.
- FOURACRE, R. P. (1859). 58, Tollington Park, Holloway.
- FOWLER, F. (1883). Minchinhampton, Stroud, Glouc.
- FOWLER, REV. CANON J. T. (1853), Bp Hatfield's Hall, Durham, and Winterton, Doncaster (retired). M.A., D.C.L. Durh. H.S.
- FOXWELL, A. (1877). 22, Newhall Street, Birmingham, and Northfield Grange, near Birmingham. B.A. Lond.; M.A., M.D. Cantab.; F.R.C.P. Physician Queen's Hosp., Birmingham. Examiner in Medicine Univ. Camb. H.P.
- FRANCIS, G. P. (1874). The Bulwark, Brecon.
- FRANKLIN, G. C. (1866). 39, London Road, Leicester. F.R.C.S. Hon. Surg. Leic. Infy. H.S., R.A.
- FRASER, D. H. (1889). 72, Bolton Road, Pendleton, Manchester.
- FRASER, D. (1877). Peterborough, Ontario, Canada.
- FRASER, H. (1884). The Thorns, Slough.
- FRAZER, W. D. (1890). 21, Central Road, Fordsburg, Johannesburg. H.S., A.H.S., Clin. Asst. Ear and Electr. Depts.
- FREDERICK, H. J. (1887). Kornthal, Sidcup, Kent. Clin. Asst. Throat and Ear Depts.
- FREEMAN, A. J. (1861). 14, Manchester Square, and San Remo, Italy. M.D. Aberd. Asst. Res. Med. Off.
- FREEMAN, D. (1857). 29, Dorset Square. 1859. Clinical Medicine, Prize.
- FREEMAN, E. C. (1879). Capt. R.A.M.C.



- FREEMAN, W. H. (1840). 10, Cromwell Road, Hove, Sussex (retired).
- FROHWEIN, O. F. (1880). 47, Lichfield Street, Burton-on-Trent.
- FULLER, A. L. (1888). 7, Oxford Row, Bath.
- FULLERTON, F. W. (1887). 79, Prospect Street, Hull. M.D., B.S. Durh.
- GABBETT, P. C. (1887). Capt. I.M.S., Madras.
- GAFF, J. (1894). 160, Kennington Road.  
w 1894-5. 1st Year Student, 1st Entrance Science Scholarship, the Wm. Tite Scholarship.  
s 1895. 1st Year Student, 1st Coll. Prize.  
w 1895-6. 2nd Year Student, The Peacock Scholarship.  
w 1896-7. 3rd Year Student, 2nd tenure of Peacock Scholarship, with 2nd Coll. Prize.  
w 1898-9. 5th Year Student, The Treasurer's Gold Medal.  
A.H.P., Clin. Assist. Skin Dept.
- GALT, W. J. (1895). Cottingham, Yorks. M.B., B.Ch. Oxon.  
Clin. Assist. Ear Dept.
- GARDENER, W. F. (1884). Darley House, Venner Road, Sydenham.
- GARNER, J. (1888). Clonmel, co. Tipperary.
- GARROD, J. R. (1896). Alconbury Hill, Huntingdon, B.A., M.B., B.C. Cantab.
- GARTON, W. (1869). Inglewood, Aughton, Ormskirk. M.D., C.M. Edin.; F.R.C.S.  
1870. 2nd Year Student, 2nd Coll. Prize; Physical Society's 2nd Year's Prize.  
1871. Physical Society's 3rd Year's Prize.  
H.P., H.S., R.A.
- GATES, E. A. (1893). 11, Collingham Road, South Kensington.  
H.P.
- GAUSSEN, D. P. (1884). The Hill, Dunmurry, co. Antrim. M.D., R.U.I.
- GEDGE, A. S. (1886).
- GENGE, G. G. (1890). 1, Poplar Walk, Croydon. M.D., B.S. Lond., D.P.H. Camb.  
w 1890-1. 1st Year Student, 1st Coll. Prize.  
s 1891. 1st Year Student, 1st Coll. Prize.  
w 1891-2. 2nd Year Student, The Peacock Scholarship.  
w 1892-3. 3rd Year Student, 2nd Tenure of Peacock Scholarship, with 1st Coll. Prize.  
w 1893-4. 4th Year Student. The Mead Medal; The Treasurer's Gold Medal.  
H.P., Obst. H.P., Clin. Assist. Ear and Skin Departs.
- GEORGE, A. W. (1888). 1, Burton Road, Brondesbury. M.D., C.M. Edin.
- GEORGE, C. F. (1854). Bellevue House, Kirton-in-Lindsey, Linc.  
1856. 2nd Year Student, Dr. Root's Prize.  
1857. Surgery and Surgical Anatomy. Cheselden Medal.  
H.S.
- GEORGE, H. (1882). Innisfail, Alberta, Canada. M.D. St. And.
- GERVIS, A. F. (1884). 1, Steele's Road, Hampstead.
- GERVIS, F. H. (1860). 1, Fellows Road, Haverstock Hill.  
1861. 1st Matriculation Scholarship—Coll. Prize, 2nd College Prize.  
1862. 2nd Year Student, 1st Coll. Prize.  
H.S., R.A.
- GERVIS, F. H. (1891). 2, Lyncroft Mansions, West Hampstead. M.D. Brux.  
w 1891-2. 1st Year Student, 2nd Entrance Science Scholarship.  
H.S., A.H.S.
- GERVIS, H. (1855). 40, Harley St., and The Towers, Hillingdon, Uxbridge. M.D. Lond., F.R.C.P. Consulting Obstetric Physician to St. Thomas's Hospital, and to the Royal Maternity Charity.  
1856. 1st Year Student, Trea. 1st Prize; Matriculation Examination, Physics, &c., Prize.  
1857. 2nd Year Student, President's Prize; Physical Society's Essay, Prize.  
1858. Clinical Assistant (Medicine), 2nd Prize; Physical Society's Essay, Prize; General Proficiency, Trea. Medal.  
Obstetric Physician. Lecturer on Midwifery and Diseases of Women and Children.
- GERVIS, H. (1884). 74, Dyke Road, Brighton. M.A., M.B., B.C. Cantab.  
H.S., A.H.S., R.A.
- GIBBON, A. H. (1893). 12, Abbey Hill, Bury St. Edmunds.  
Clin. Asst. Elect. Dept.
- GIBBS, A. N. G. (1879). 52, Whiteladies Road, Clifton, Bristol.
- GIBSON, W. A. (1888). Stockfield, Leigham Vale, Streatham.
- GILBERT, H. P. (1873). Baywood House, Aston Clinton, Tring.
- GILBERT, L. (1892). M.B., B.S. Lond.  
w 1892-3. 1st Year Student, Half 2nd Coll. Prize.  
H.S., A.H.S., Jun. Obst. H.P.
- GILBERTSON, W. (1889). 63, Evelyn Gardens. B.A. Cantab.
- GILDER, S. E. A. (1875). 16, Salisbury Gardens, Tunbridge Wells.
- GILES, F. W. (1873). Villa Germaine, Cannes, France. M.B. Durh.
- GILL, J. (1872). 30, West Mall, Clifton, Bristol. M.D. Brux.
- GILLAM, J. B. (1888). Holt, Norfolk. B.A., M.B., B.C. Cantab.



- GILLARD, C. R. (1872). 879, Dorchester Street, Montreal, Canada. M.D., C.M. Montreal
- GILMOUR, J. H. (1870). Hurst Lodge, Hurstbourne - Tarrant, Andover, Hants.
- GIMLETTE, G. H. D. (1873). Major I.M.S. Bengal. M.D., M.Ch. R.U.I. w 1876-7. Physical Society's 3rd Year's Prize.  
H.P., R.A., H.S., A.H.S.
- GIMLETTE, J. D. (1885). Kudla Lipis, Ulu Pahang, Malay Peninsula.
- GIMLETTE, T. D. (1874). Fleet Surg. R.N.
- GIRDLESTONE, H. E. (1886). Ard-voulan, Poole Road, Bournemouth.
- GLADSTONE, A. E. (1893). Penryn, Cornwall.
- GODDARD, B. (1885). 27, Pentonville Road, and 106, Highbury New Park.
- GODDARD, E. (1859). North Lynn, 106, Highbury New Park. M.D. Durh. 1860. Matriculation Examination, Classics, &c., Prize.
- GODFREY, A. E. (1881). Lansdowne, Woodside Park, North Finchley. M.B. Lond.  
s 1883. 2nd Year Student, 2nd Coll. Prize. w 1883-4. 3rd Year Student, 2nd Coll. Prize.  
H.P., A.H.P., R.A. Clin. Asst. Ear Dept.
- GODFREY, H. J. C. (1878). Eaglehurst, Bridlington Quay, Yorks.
- GODFREY, T. H. (1882). The Red House, Church End, Finchley. M.B. Durh.; D.P.H. Cantab.
- GOLDSMITH, J. (1854). Lee-on-the-Solent, Gosport, Hants. M.D. St. And. (Retired).
- GOOD, J. W. (1877). Winnipeg, Canada.
- GOODY, E. S. (1881). Seiriol Villa, North Madoc St., Llandudno. F.R.C.S.  
w 1882-3. 2nd Year Student, 3rd Coll. Prize. s 1883. 2nd Year Student, 1st Coll. Prize.  
H.S., A.H.S., A.H.P.
- GOODE, H. N. (1891). 3, Vicarage Gardens, Kensington. M.B. Lond.  
H.P. Clin. Assist. Elect Dept.
- GOODHUE, F. W. J. (1888). Langton, Upton Road, Watford. B.A. Cantab.
- GOODMAN, P. T. (1890). 75, Brick Lane, Spitalfields.
- GORDON, B. (1881). 11, Manor Park Parade, Lee.
- GORNALL, J. G. (1888). Holly Bank, Latchford, Warrington, M.A., M.B., B.C. Cantab.
- GORST, H. (1878). Huyton, Liverpool.
- GOULSTON, A. (1877). 2, Homefield Place, Heavitree, Exeter. M.A. Cantab.
- GOVER, H. J. (1875). Littlebury, Saffron Walden, Essex. M.A., M.B. Cantab.
- GOVER, L. D. (1884). 30, Bernard St., Russell Square.  
Clin. Asst. Ear Dept.
- GRABHAM, G. W. (1854). Mathyns, Witham, Essex. M.D. Lond.; M.R.C.P.  
1855. Matriculation Scholarship.
- GRABHAM, M. (1888). Kingston, Jamaica, W. Indies. M.B., B.C. Cantab.
- GRABHAM, M. C. (1858). Madeira. M.D. Aberd.; F.R.C.P. Lond.  
H.S.
- GRAHAM, A. G. (1893). 2, Lansdowne Road, Wimbledon.
- GRAHAM, V. (1889). Westbrook House, Aston Village, Birmingham.
- GRANT, A. J. (1888). 13, Irving Mansions, Queen's Club Gardens, West Kensington. M.D. Brux.  
Clin. Assist. Throat Dept.
- GRANT, J. H. S. 25, Baldry Gardens, Streatham.
- GRANT, J. W. G. (1884). Barnard's Green Villa, Gt. Malvern, Worc.
- GRANT-WILSON, C. W. (1887). St. Winnows, Bromley, Kent.  
Obst. H.P.
- GRAY, C. (1855). Maj. R.A.M.C. (retired).
- GRAYDON, A. (1886). 73, Talbot Road, Bayswater.
- GREAVES, C. A. (1860). 84, Friar Gate, Derby. M.B., LL.B. Lond.; A.A. Oxon.  
1861. 1st Year Student, Treasurer's Prize.  
1862. 2nd Year Student, 2nd Coll. Prize; Physical Society's Prize.  
1863. 3rd Year Student, 1st Coll. Prize; Physical Society's Prize; Cheselden Medal.  
H.S., R.A.
- GREAVES, F. L. A. (1892). 84, Friar Gate, Derby.  
H.S., A.H.S.
- GREAVES, H. (1888). Hankelow, Audlem, Chesh. B.A., M.B., B.C. Cantab.
- GREEN, A. (1886). 1, Walker Terr., Gateshead-on-Tyne. M.B. Durh.
- GREEN, C. D. (1879). The Ferns, South St., Romford, Essex. M.D., B.S. Lond.; F.R.C.S. Eng.  
w 1879-80. 1st Year Student, The Wm. Tite Scholarship.  
s 1880. 3rd Coll. Prize.  
w 1880-1. 1st Coll. Prize.  
s 1882. 1st Coll. Prize.  
H.S., A.H.S., H.P., A.H.P., R.A.
- GREEN, E. C. (1877). 27, Friar Gate, Derby.
- GREENE, F. W. (1852). Isipingo, Durban, Natal.

- GREENFIELD, W. S. (1886). 7, Heriot Row, Edinburgh. M.D., F.R.C.P. Lond.; F.R.C.P. Edin.; F.R.S.E.; Prof. of Path. and Clin. Med. Univ. Edin. Assist. Phys., Med. Registr., and Lect. on Path. Anat.
- GREENWOOD, J. W. (1867). Peel House, Hanley, Staffs. M.D. St. And.
- GREG, A. H. (1895). B.A., M.B., B.C. Cantab.  
H.S., A.H.S.
- GREGORY, S. (1880). Hadfield House, Birchanger Road, South Norwood.
- GRESSWELL, G. (1889). 395, Cleethorpe Rd., Gt. Grimsby, Linc. M.A. Oxon.; M.A. Cape of Good Hope.
- GRIEVE, W. D. (1885). 47, Buccleuch St., Dumfries. M.B., C.M. Edin.
- GRIFFITH, A. L. (1856). 606, Harrow Road. M.D. St. And.
- GRIFFITHS, F. A. Ingleton, Lancaster, Yorks.
- GRIMBLY, R. H. (1872). Newton Abbott, S. Devon.
- GROOME, W. W. (1876). Suffolk House, Maple Road, Surbiton. B.A., M.D. Cantab.  
H.P., A.H.P.
- GROSE, S. (1856). Valetta, Thurlow Road, Torquay. M.D. St. And.; F.R.C.S.
- GRÜNBAUM, A. S. F. (1887). 67, Rodney Street, Liverpool. Univ. Coll., Liverpool. M.A., M.D., B.C., Cantab.; M.R.C.P.  
1893. Grainger Testimonial Prize.  
H.P., Clin. Assist. Skin Dept.
- GURNEY, H. (1880). Stour House, Dovercourt, Essex.
- GUTHRIE, T. C. (1895). Belmont, Tunbridge Wells. M.B., M.S. Edin.
- GWYNN, R. H. (1872). 19, Pitfield Street, Hoxton.
- HACON, E. D. (1836). 269, Mare St., Hackney. F.R.C.S. (retired).
- HAGUE, J. T. (1874). 320, Brixton Road.
- HAGUE, S. (1862). 325, Southampton Street, Camberwell. LL.B. Lond.; M.D. St. And.  
1863. 1st Year Student, 2nd Coll. Prize.  
Medical Registrar.
- HAG, F. M. (1882). 4, Lansdowne Place, Coventry. M.A., M.D., B.C. Cantab.  
H.P.
- HAIG-BROWN, C. W. (1877). Dean Lodge, Godalming, Surrey. M.D., C.M. Aberd. Med. Off. Charterhouse Sch.  
s 1878. 1st Year Student, 2nd Coll. Prize.  
w 1878-9. 2nd Year Student, 2nd Coll. Prize.  
w 1880-1. The Cheshelden Medal.  
H.P., A.H.P., H.S., A.H.S.
- HAINES, A. (1886). St. Just, Tenbury, Worc.
- HAINES, E. (1890). Raughmere, Lavant, Chichester. Surg. R.N.
- HAINWORTH, E. M. (1888). 54, Prince's Avenue, Hull. M.D., B.S., B.Sc. Lond., F.R.C.S. Hon. Assist. Surg. Royal Infirmary.  
w 1888-9. 1st Year Student, 1st Entrance Science Scholarship.  
s 1889. 1st Year Student, 2nd Coll. Prize.  
w 1890-1. 3rd Year Student, 1st Coll. Prize.  
s 1891. 3rd Year Student, 1st Coll. Prize.  
H.S., A.H.S., H.P.
- HAKIM, H. M. (1880). Surg.-Maj. I.M.S., Madras.
- HALL, J. B. (1892). 31, Maningham Lane, Bradford. M.A., M.B., B.C. Cantab., F.R.C.S. Edin.; Res. Casualty Off. Gen. Infirmary. Leeds.
- HALL, J. L. (1873). Maj. R.A.M.C.
- HALL, J. S. (1891). 34, De Vere Gdns. H.S., A.H.S. Opth. H.S. Clin. Asst. Skin Dept.
- HALL, R. D. G. (1873). The Lilacs, Arundel Road, Littlehampton, Sussex.
- HALL, R. H. (1890). Hillside, Headingley, Leeds. M.A., M.B., B.C. Cantab.
- HALL, S. H. (1894). 49, Spencer St., Carlisle. M.B., C.M. Edin.
- HALLAM, S. R. (1886). 14, Huntingdon Street, Barnsbury.
- HALLILAY, R. P. (1887). Moorland Lodge, Leeds.
- HALLIWELL, T. O. (1889). Manor Place, Dewsbury, Yorks.  
Clin. Asst. Throat Dept.
- HAMERTON, G. A. (1869). 3, Southampton St., Covent Gdn. M.D. Brux.; F.R.C.S. Eng. D.P.H.
- HAMMOND, J. H. (1847). 11, Winckley Square, Preston, Lanc. M.D. Aberd.; M.R.C.P., J.P.  
1850. Medical Cases, President's Prize.
- HANBURY, W. R. (1889). 27, Station Road, Watford.
- HANLY, E. (1886). 1, Palace Court, Kensington Gardens. M.D., M.Ch. R.U.I.
- HANNAH, F. R. (1882). 66, Jackson Road, Holloway.
- HANSON, J. (1877). Adelaide, South Australia.
- HANWELL, G. L. (1888). 1, Blakesley Avenue, Ealing.  
Clin. Asst. Throat Dept.
- HARCOURT, G. R. (1888). Asst. Med. Off. Lambeth Infirmary.  
Clin. Asst. Skin Dept.

- HARCOURT, J. C. (1891). Lambeth Infirmary.  
w 1891-2. 1st Year Student, The Wm. Tite Scholarship.  
s 1892. 1st Year Student, 2nd College Prize.  
s 1893. 2nd Year Student, 1st College Prize.  
s 1894. 3rd Year Student, 1st College Prize.
- HARDING, H. W. (1889). Stanley Villa, Rushey Green, Catford. M.B. Lond.  
H.S., A.H.S.
- HARDING, J. A. (1857). Osman House, 118, Cromwell Rd., Bristol (retired).  
1859. Clinical Medicine, 2nd Prize.  
1860. Clinical Assistant (Medicine), 1st Prize.
- HARDWICK, H. G. C. (1889). B.A. Cantab.
- HARDYMAN, C. E. (1866). Hill House, Bramerton, Norwich (retired). M.D. Durh.; F.R.C.S. Edin.  
H.S.
- HARE, F. W., St. George's Club, Hanover Sq. M.D.
- HARE, E. H. (1872). Lightcliffe House, Hornsey. M.A. Oxon.; F.R.C.S. Eng.  
A.H.P.
- HARFORD-BATTERSBY, C. F. (1887).  
14, Earham Grove, Forest Gate. M.A., M.D., B.C. Cantab.
- HARLEY, J. 9, Stratford Place. M.D., F.R.C.P. Lond.; Cons. Phys. St. Thos. Hosp.; Cons. Phys. Lond. Fev. Hosp.
- HARMAN, L. (1889). Shalmsford, Brixton Hill. M.B. Durh.
- HARPER, J. (1889). 56, Orange St., The Gardens, Capetown.
- HARPER, J. R. (1886). 3, Union Terrace, Barnstaple, Devon.  
H.S., A.H.S., R.A., S.O.C.
- HARPER, R. (1842). 18, Park Road, West Dulwich (retired). J.P.  
1845. Physical Society's Essay, Prize  
Dresser's Clinical Surgery, Prize.
- HARPER, R. R. (1872). Holbeach, Linc.
- HARPER, W. J. (1887). Bloomfield, Braunton, N. Devon.
- HARRIS, F. A. (1874). Maj. R.A.M.C.
- HARRIS, H. A. C. (1892). 19, De Crespigny Park, Camberwell.
- HARRIS, J. E. (1887). 46, Marsham Street, Westminster. B.A., D.Sc. Lond.  
w 1887-8. 1st Year Student, 1st Entrance Science Scholarship.
- HARRIS, J. B. (1864). Elsworth, Upper Walmer. M.D. Durh.
- HARRIS, W. (1865). Res. Med. Supert. Norwich City Lunat. Asyl., Helledon, Norwich. M.D. St. And., F.R.C.S., M.R.C.P. Edin.
- HARRIS, W. J. (1881). 34, Wellington Square, Hastings.
- HARRIS-BICKFORD, A. (1855). Veor Villa, Camborne, Cornwall. M.D. St. And.
- HARRISON, A. (1878). Stoneleigh House, Curry Rivel, nr. Taunton.
- HARRISON, H. M. (1889). British North Borneo Co. B.A. Cantab.
- HARRISON, A. E. (1895). High Street. Daventry. B.A., M.B., B.C. Cantab.
- HARTLEY, H. (1878). Stone, Staffords.
- HARVEY, E. (1877). Hamilton, Bermuda, W. Indies.
- HARVEY, S. F. (1875). 117A, Queen's Gate, South Kensington.
- HARVEY, T. (1863). 6, Montague Place, Poplar.
- HASLAM, H. C. (1893). 15, Lindfield Gardens, Hampstead. B.A., M.B., B.C. Cantab.  
H.P.
- HASLAM, J. N. (1833). Niel Lodge, Dagnall Pk., Selhurst (retired).
- HASLAM, W. F. (1874). 54, Newhall St. Birmingham, and 24, York Road, Edgbaston. F.R.C.S., Demonstr. of Anatomy, Mason Coll. Birmingham, Surgeon, Birmingham General Hospital. Examiner in Anatomy for Fellowship R.C.S.  
s 1876. 2nd Year Student, 1st Coll. Prize.  
w 1877-8. The Cheselden Medal.  
Demonstrator of Anatomy, H.P., A.H.P., H.S., A.H.S., R.A.
- HATCHETT, F. W. (1879). 6, Upper Cheyne Row, Chelsea.
- HATHAWAY, C. (1836). 11, Edward Road, St. Leonards-on-Sea. M.D. Aberd.
- HATHERELL, R. R. (1884). Hatch Beauchamp, Somers. M.A. Cantab.
- HATTON, G. S. (1875). Hanover House, Newcastle - under - Lyme. M.D., M. S. Durh.; F.R.C.S. Edin.  
w 1876-7. 2nd Year Student, Prosector's Prize.  
H.P., A.H.P.
- HAVILAND, A. Ridgemount, Frimley Green, Surrey.  
Late Lect. on Geography of Disease.
- HAWARD, H. H. (1890). Castleton, Northwich, Cheshire. B.A., M.B., B.C. Cantab.  
Clin. Asst. Skin Dept.

- HAWKINS, H. P. (1882). 56, Portland Place. M.A., M.D. Oxon., F.R.C.P., Phys. to St. Thos. Hosp. Dean of Med. School.  
 w 1882-3. 1st Year Student, The William Tite Scholarship.  
 w 1883-4. 2nd Year Student, The Peacock Scholarship.  
 w 1884-5. 3rd Year Student, 2nd tenure of Peacock Scholarship and 1st Coll. Prize.  
 Res. Asst. Phys., H.P., A.H.P., Demonstr. of Pract. Med. and Morbid Histology. Jt. Lecturer on Pathology.  
 Travelling Fellow, Oxford, 1886.
- HAWKINS, W. (1870). The Vicarage, Abbotsbury, Dorchester.
- HAYASHI, K. (1892). Tokyo, Japan.
- HAYDON, T. H. (1888). Marlborough. B.A., M.B., B.C. Cantab.  
 H.S., A.H.S., Obst. H.P. and Demonstr. of Pract. Surg.
- HAYFORD, E. J. (1885). Wilberforce St., Freetown, Sierra Leone.
- HAYMES, H. E. (1891). R.A.M.C.
- HAYWARD, J. (1857). 141, St. John Street Road.
- HEATHER, B. G. (1886). Surg. R.N.
- HEAVEN, J. C. (1879). 17, Whiteladies Road, Clifton, Bristol. D.P.H., Lect. on Hygiene S. Kensington, and Demonstr. of Hygiene Univ. Coll. Bristol.
- HEELIS, R. (1876). Church Street, Lenton, Nottingham. M.D. Durh.  
 s 1877. 1st Year Student, 2nd Coll. Prize.  
 s 1878. 2nd Year Student, 2nd Coll. Prize. A.H.P.
- HEFFERNAN, H. H. (1883). Rose-dale, Wolston, near Coventry.  
 w 1883-4. 1st Year Student, 2nd Coll. Prize.
- HEFFERNAN, W. H. (1881). Alma Villa, Victoria Road North, Southsea.
- HEIN, G. G. B. (1884). Peterson Road, Wakefield.
- HELSHAM, H. P. (1882). Beccles, Suffolk.
- HELSHAM, W. M. (1882). Richmond, New South Wales.
- HEMINGWAY, J. (1885). 16, Merton Road, Wimbledon.
- HENDERSON, W. D. (1884). Regent Street, Kingswood, Bristol.
- HENRY, R. (1885). Surg. P. & O.
- HENSLOWE, F. W. D. (1871). Elm Tree Villa, Victoria St., Dunstable, Beds.
- HERBERT, W. (1890). 6, Lancaster Place, Hill Rise, Richmond.
- HERSCHELL, G. (1874). 27, Queen Anne Street. M.D. Lond.
- HEWAN, J. (1880). Cinnamara P.O., Jorhât, Upp. Assam, India.
- HEWETT, J. W. (1888). Medical Missionary, China Inland Mission, Pingyang, Shansee. A.H.S.
- HEWITT, H. E. (1893). 80, Heathfield Road, Croydon. M.B., B.S. Lond.  
 w 1893-4. 1st Year Student, 2nd Entrance Scholarship, Tite Scholarship.  
 s 1894. 1st Year Student, 1st College Prize.  
 w 1894-5. 2nd Year Student, Musgrove Scholarship.  
 w 1895-6. 3rd Year Student, 2nd tenure of Musgrove Scholarship and 1st College Prize.  
 s 1896. 3rd Year Student, 1st College Prize.  
 w 1897-8. 5th Year Student, The Treasurer's Gold Medal.  
 H.P. Clin. Assist. Throat Dept.
- HEYGATE, F. N. (1874). The Elms, Wisborough Green, Billingshurst.
- HEYGATE, W. N. (1861). 12, Bennett Street Circus, Bath. R.A.
- HEYWOOD, C. C. (1887). Irlam's-o'-th'-Height, nr. Manchester. M.A., M.B., B.C. Cantab.  
 s 1888. 3rd Year Student, 2nd Coll. Prize Clin. Asst. Throat Dept.
- HICHENS, P. S. (1892). St. Stephen's Rectory, Canterbury. M.A., M.B., B. Ch. Oxon., M.R.C.P.  
 w 1893-4. 3rd Year Student, 1st College Prize.  
 H.P. Ophth. H.S.
- HICKS, Rt. Rev. J. W. (1858). Bloemfontein, Orange Free State. M.D., F.R.C.P.  
 1859. 1st Year Student, Treasurer's 1st Prize.  
 1860. 2nd Year Student, 1st Coll. Prize Physical Society's Prize.  
 1861. 3rd Year Student, 1st Coll. Prize; Physical Society's Prize. Cheselden Medal; Treasurer's Gold Medal.
- HICKS, T. W. (1887). Park House, East Finchley. M.B. Lond.  
 H.P. Obst. H.P., Clin. Asst. Throat Dept.
- HIGHTON, T. (1869). Green Hill House, Normanton Road, Derby. H.P.
- HILDYARD, N. (1879). 74, Marine Parade, Worthing.
- HILEY, R. F. (1884). Pilley's Island, Notre Dame Bay, Newfoundland.
- HILL, D. P. S. (1892). Larne, co. Antrim. M.B., B.Ch., B.A.O., R.U.I.
- HILL, E. B. (1883). Royal Hospital, Richmond. B.A., M.B., B.C., Cantab.
- HILL, R. A. L. (1890). Athole Houe, Merton Rd., Wimbledon.
- HILLIAM, W. P. (1893). Wyke, nr. Bradford, Yorks.
- HILLYER, W. H. (1882). Blythburgh, Polworth Road, Streatham.



- HINDLEY, G. J. D. (1895). 72, Queen's Road, Dalston. B.A. Oxon. Opth. H.P.
- HINNELL, J. S. (1882). 62, Garland Street, Bury St. Edmund's. B.A., M.D., B.C. Cantab. Opth. Asst.
- HISLOP, W. J. H. (1898). 148, Fellows Rd., S. Hampstead. M.B., M.S. Edin.
- HITCHCOCK, H. K. (1866). Christowell, Branksome Park, Bournemouth. M.D. Brux.; J.P.
- HOAR, C. (1879). The Grove, Robertsbridge, Sussex. M.B., C.M. Aberd.
- HOBAN, T. (1893). 15, Uxbridge Rd., Surbiton. Jun. Opth. H.S.
- HOBHOUSE, E. (1884). 36, Brunswick Place, Brighton. M.D., B.Ch. Oxon.; M.R.C.P. w 1885-6. 3rd Year Student, 2nd Coll. Prize. H.P., A.H.S.
- HOCKRIDGE, T. G. (1879). 27, Tysoe St., Wilmington Sq., M.D., C.M. McGill, Montreal.
- HODGES, H. B. (1853). Glenaveril, Knebworth, and Watton Cottage, Watton, Herts.
- HODGES, H. C. (1878). Watton-at-Stone, Herts.
- HODGSON, C. (1887). Leyburn, Streatham.
- HODGSON, W. (1871). Gatefield House, Crewe, Chesh.
- HODSON, T. (1858). Ingatestone, Essex.
- HOLBERTON, H. N. (1876). Chetwynd, Palace Road, East Molesey, Surrey. D.P.H. w 1876-7. 2nd Entrance Science Scholarship, and 2nd Coll. Prize. w 1877-8. 2nd Year Student, 1st Coll. Prize. A.H.P.
- HOLDING, C. (1829). F.R.C.S.
- HOLLAND, E. W. (1878). B.A. Cantab.
- HOLLOWAY, R. (1876). Edgecumbe House, Brockhurst, nr. Gosport.
- HOLMES, E. R. (1895). Russell House, Shifnal, Salop. M.B., C.M. Edin.
- HOME, A. L. (1889). Kingsbury, Warwickshire. M.B., B.S. Lond. w 1894-5. Bristowe Medal H.S., A.H.S. Obst. H.P.
- HOOD, N. L. (1891). Castlegate House, York. B.A., M.D., B.C. Cantab.
- HOOPER, A. W. (1889). Ashdene, Burnt Ash Hill, Lee. R.A.M.C.
- HOOPER, J. H. (1857). 139, Burnt Ash Hill, Lee. M.D., M.S. Lond.; F.R.C.S. 1859. 2nd Year Student, Coll. Prize.
- HOPE, G. (1881). Beaconsfield House, Uxbridge Road, Hanwell.
- HOPKINSON, E. (1893). 58, St. Giles, Oxford. B.A., M.B., B.Ch. Oxon. Opth. H.S. Clin. Asst. Ear Dept.
- HORLEY, W. L. (1851). Stanboroughs, Hoddesdon, Herts. (Retired).
- HORTON-SMITH, R. J. (1896). 53, Queen's Gardens, Bayswater. w 1896-7. 3rd Year Student, Univ. Scholarship, 1st Coll. Prize. w 1898-9. 5th Year Student, The Wainwright Prize.
- HOUGH, C. H. (1875). Full St., Derby.
- HOUGH, J. (1836). Grange Road Cambridge. F.R.C.S., J.P.
- HOUGHTON, L. (1873).
- HOULGRAVE, A. (1880). 23, Great George's Rd., Waterloo, Liverpool.
- HOUNSELL, F. C. W. (1881). Dower House, Bugbrooke, Northants. B.A. Cantab. Opth. Asst.
- HOUSE, F. M. (1883). Katauning, Western Australia.
- HOW, A. B. (1883). Parkhurst, Claygate, Surrey.
- HOWELL, T. S. (1841). The Old Vicarage, Wandsworth.
- HOWLETT, B. F. (1893). 95, Balham Park Road.
- HOWLEY, E. J. (1889). Milton House, York Road, West Hartlepool.
- HOWSE, W. (1856). 8, London Street, New Swindon, Wilts.
- HUBBARD, A. J. (1876). Durrance House, Hemel-Hempstead, Herts. M.D. Durh.
- HUDSON, H. (1882). Wesleyan Mission House, Bishopsgate Within.
- HUDSON, J. S. (1888). 113, Leadenhall Street. M.D.
- HUDSON, O. H. (1881). Park House, Chesterfield Road, Sheffield.
- HUGHES, A. E. P. (1884). Opth. H. S.
- HUGHES, R. (1889). Church Street, Fenton, Stoke-on-Trent. M.B. Lond.
- HULBERT, H. H. (1884). 14, Cedar Gardens, Putney. B.A. Oxon. H.S., A.H.S., Clin. Asst. Throat and Ear Depts., Asst. Teacher of Pract. Surg.
- HULL, W. (1878). Cootamundra, N. S. Wales. M.D. Lond. w 1878-9. 2nd Entrance Science Scholarship. w 1881-2. The Mead Medal. H.P., A.H.P., H.S., A.H.S., R.A.
- HUME, F. H. (1860). 53, Devonshire Street, Islington. M.D. St. And.
- HUME, F. N. (1871). Med. Superint. Northern Hosp., Winchmore Hill.
- HUNT, J. A. (1872). Brookfield, Borrowash, Derbysh. w 1874. Prosecutor's Prize.



- HUNT, J. P. (1886). Lieut.-Col. R.A.M.C. M.D. Glasg., F.R.C.S.I.
- HUNTLEY, L. (1842). 79, Freshfield Road, Kemp Town, Brighton.
- HUSKINSON, H. (1888). Surg. R.N. M.B. Durham.
- HUTCHINSON, J. A. (1883). Northalerton, Yorks. M.D., M.S. Durh.
- HUTTON, H. R. (1875). 16, St. John Street, Manchester. M.A., M.B. Cantab.  
Demonst. of Physiol., Asst. Demonst. of Pract. Path. and H.P.
- IDESON, J. J. (1857). The Poplars, Colne, Lancash.
- ILES, A. R. (1872). Shutterne House, Taunton, Somers.
- ILLINGWORTH, J. A. (1856). Brig.-Surg. Army (retired).
- INGLIS, W. W. (1863). Regent Villa, Clarence, Bickley, Kent. M.D. Heidelb.  
1864. 1st Year Student, 2nd Coll. Prize.  
1865. 2nd Year Student, 2nd Coll. Prize.  
1866. 3rd Year Student, 3rd Coll. Prize;  
Cheselden Medal.  
Medical Registrar and H.S.
- IRVING, D. B. (1879). Vancouver, Brit. Columbia, Canada.
- ISAACS, E. P. (1885). 1, Sinclair Rd., Kensington.  
Ophth. H.S.
- IVES, R. (1854). Chertsey Lodge, Portswood, Southampton.
- JACKSON, J. (1868). 15, Huntingdon Street, Barnsbury.
- JACKSON, W. M. 65, Shooter's Hill Road, S.E. M.D.
- JAFFE, C. S. (1887). 138, Sutherland Avenue, Maida Vale. M.D., B.S. Lond.  
w 1887-8. 1st Year Student, Half 2nd Coll. Prize.  
H.P., Obst. H.P., Clin. Asst. Throat Dept. Salters' Company Research Fellow.
- JAMES, C. H. (1883). Capt. I.M.S. Bengal.  
w 1887-8. Solly Medal and Prize.  
H.S., A.H.S., R.A.
- JAMES, F. C. (1889). 48, Tregunter Road, South Kensington. M.B. Durh.
- JAMES, J. M. (1885). 647, Queen's Road, Heeley, Sheffield.
- JAMES, S. (1886). Samastipur, T. S. Railway, India.
- JARDINE, J. L. (1846). Capel, Dorking, Surrey.  
1850. Medical Reports, Dr. Roots' Prize.  
H.S.
- JARVIS, J. (1881). 38, Gay Street, Bath.
- JEFFERSON, A. J. (1874). 2, West St., Rochdale. M.D., B.S. Lond.
- JEFFERSON, T. J. (1860). Market Weighton, Yorks. M.D. Aberd. H.S.
- JEFFREYS, A. (1886). Giants' Grave, Briton Ferry, Neath, S. Wales.
- JEFFREYS-POWELL, J. P. (1874). Senny Bridge, Brecon, S. Wales.
- JENNER, L. L. (1890). 4A, Bloomsbury Square. M.A., M.B., B. Ch. Oxon.; M.R.C.P. Supt. of Clinical Laboratory, St. Thos. Hosp.  
s 1892. 3rd Year Student, 2nd Coll. Prize.  
Demonst. of Morbid Histology. H.P.
- JOHNSON, C. G. (1869). Harpur Villa, Bedford.
- JOHNSON, W. G. (1852). 68, High Street, Bedford.  
1855. Comparative Anatomy, Prize.
- JOHNSON, G. D. (1879). Georgia St., Vancouver, British Columbia, Canada.  
w 1882-3. 4th Year, Cheselden Medal.  
H.P., H.S., A.H.S., R.A., Ophth. Clin. Asst.
- JOHNSTON, T. (1878).
- JOLLY, S. B. (1879). Godstone House, West Hill, Sydenham. M.B. Cantab.
- JONAS, H. C. (1891). Duxford, Cambs.  
w 1896-7. 5th Year Student, The Mead Medal.  
H.P.
- JONES, A. R. (1892). 32, Wellington Street, Merthyr Tydvil.
- JONES, A. W. (1885). Godington, Bicester. M.A. Oxon.  
s 1888 3rd Year Student, 1st Coll. Prize.
- JONES, A. W. (1894).  
w 1895-6. 2nd Year Student, 2nd Coll. Prize.  
Clin. Assist. Ear Dept.
- JONES, B. S. (1884). 18, Portland Place.
- JONES, C. E. (1891). Port Alfred, Cape Colony.  
Clin. Asst. Throat Dept.
- JONES, C. M. (1870). Glantaff House, Troedyrhiw, Glamorg.  
R.A.
- JONES, E. (1855). Ty-mawr, Aberdare, Glam. J.P.
- JONES, E. J. T. (1880). Ty-mawr, Aberdare, Glamorg. M.D.
- JONES, H. T. (1886). Harlech House, Pembroke, S. Wales.
- JONES, J. T. (1870).
- JONES, R. W. (1864). 77, Vauxhall Bridge Rd.

- JONES, SYDNEY (1850). 18, Portland Place. M.B. Lond.; F.R.C.S. Eng.; Consulting Surg. to St. Thos. Hosp. 1851. Matriculation Scholarship, Prize; 1st Year Student, Scholarship. 1852. 2nd Year Student, Scholarship. Descriptive Anatomy, Prize. 1853. 3rd Year Student, Scholarship. Late Member of Council, Royal College of Surgeons. Late Surg., Lect. on Surg., on Descrip. Surg., Surg. Anat., Ophth. Surg. and on Comp. Anat., Cur. of Mus., Demonst. of Healthy and Morbid Anat. at St. Thos. Hosp.
- JONES, S. H. (1881). 18, Portland Place. M.B., B.S. Lond.; F.R.C.S. w 1881-2. 1st Year Student, 1st Entrance Science Scholarship. The William Tite Scholarship. w 1882-3. 2nd Year Student, Half Musgrove Scholarship and 1st Coll. Prize combined. Prosector's Prize. w 1883-4. 3rd Year Student, 2nd tenure of Half Musgrove Scholarship, with 1st Coll. Prize. s 1884. 3rd Year Student, Half 1st and 2nd Coll. Prizes. w 1884-5. 4th Year Student, The Cheselden Medal. Treasurer's Gold Medal. H.S., A.H.S., Clin. Asst. Ear and Skin Depts.
- JONES, T. J. (1882). Langstone Court, nr. Ross, Hereford. B.A. Cantab., M.B., C.M. Edin.
- JONES, T. M. (1845). Kilby House, Loughor, Glamorg.
- JONES, W. W. (1877). Pinehurst, Barlow Moor Rd., Didsbury, Manchester. M.A., M.B. Oxon., B.Sc. Lond. w 1877-8. 1st Year Student; 1st Entrance Science Scholarship; £60; The William Tite Scholarship. w 1877-8. 1st Year Physical Society's Prize. s 1878. 1st Year Student, 1st Coll. Prize. w 1878-9. 2nd Year Student, The College Scholarship. s 1879. 2nd Year Student, 2nd Coll. Prize. w 1879-80. 3rd Year Student, 2nd tenure of Coll. Scholarship, and 1st Coll. Prize. w 1880-1. The Mead Medal; Treasurer's Gold Medal. H.P., H.S., A.H.S., R.A.: Radcliffe Travelling Fellow, Oxford, 1880.
- JOTHAM, E. (1843). 270, Camden Road.
- JOTHAM, E. S. (1855). 63, Roe St., Macclesfield.
- JOTHAM, G. W. (1870). George St., Kidderminster. M.D., C.M. Aberd.
- JULIUS, H. A. (1886). Surg. R.N.
- KAI, HO (1875). 3, Elgin St., Hong Kong, China. M.B., C.M. Aberd.
- KAKA, S. M. (1884). Karachi, India.
- KAPADIA, S. A. (1881). 40, Glazbury Road, W. Kensington. M.D. Brux.
- KAVANAGH, P. J. F. (1887). 56, Queen's Gardens, Hyde Park.
- KEATES, W. C. (1869). 20, East Dulwich Road.
- KEELE, C. F. (1857). 3, Great Russell Street, Bloomsbury.
- KEELE, G. T. (1851). 81, St. Paul's Road, Highbury.
- KEELE, J. R. (1879). 3, Sussex Place, Southampton.
- KELLER, H. L. A. (1884). Rossland, British Columbia. B.A. Oxon.
- KELLOCK, T. H. (1886). 8, Queen Anne Street. M.A., M.D., B.C. Cantab.; F.R.C.S. Asst. Surg. Middlesex Hosp. and Hosp. for Sick Children. w 1889-90. 4th Year Student; The Cheselden Medal. H.S., A.H.S., H.P.
- KEMPE, C. M. (1859). Chantry House, New Shoreham, Sussex.
- KENNARD, H. P. (1890). Norfolk and Norwich Hospital. M.B., B.S. Durh. Clin. Assist. Ear Dept.
- KENT, P. W. (1890). H.S., A.H.S., Clin. Asst. Ear Dept.
- KER, J. E. (1880). Asst. Surg., Colonial Hosp., Gibraltar.
- KERR, G. D. (1883). Norland House, Victoria Road, Brighton.
- KERR, J. K. (1876). Glenaltans, Knock, Belfast. M.D., M.Ch. R.U.I.
- KESER, J. S. (1880). 11, Harley Street, Cavendish Square. M.D. Bâle; F.R.C.S. Eng.
- KEYWORTH, J. W. (1847). Moonta, S. Australia. M.D. Lond. 1848. Materia Medica, Prize; 1849. Midwifery, 3rd Prize; Physical Society's Essay, Prize. 1850. Ophthalmic Reports, a Governor's Prize; Essay on Neuralgia, Mr. Newman Smith's Prize. 1851. Comparative Anatomy, Prize; Clinical Medicine, Prize; Surgical Reports, Prize; Midwifery, Prize; Medical Reports, Prize; Pathology, Prize; Physical Society's Essay, Prize.
- KIDD, H. C. (1881). Bromsgrove, Worc. M.B. Lond.; F.R.C.S. w 1881-2. 1st Year Student, 3rd Coll. Prize. H.S., A.H.S., A.H.P. Clin. Asst. Ear Dept.
- KILHAM, C. S. (1880). 1, Barber Road, Crookesmoor, Sheffield.
- KILNER, W. J. (1869). 218, Ladbroke Grove, N. Kensington. B.A., M.B. Cantab.; M.R.C.P. Electrician.
- KILVERT, J. E. (1892). Fieldside, Somerset Road, Ealing. H.S., A.H.S.

- KING, A. (1886). Cradock, Cape Colony.  
 w 1886-7. 1st Year Student, 1st Coll. Prize.  
 s 1887. 1st Year Student, 1st Coll. Prize.  
 s 1888. 2nd Year Student, 1st Coll. Prize.  
 w 1888-9. 3rd Year Student, 3rd Coll. Prize.  
 s 1889. 3rd Year Student, 1st Coll. Prize.  
 w 1889-90. 4th Year Student; Treasurer's Gold Medal.  
 H.P.
- KING, A. F. W. (1889). Capt. I.M.S.  
 Clin. Asst. Throat Dept.
- KING, P. (1884). 27, Gay Street, Bath.  
 B.A., M.D., B.C. Cantab.
- KINGSFORD, B. H. (1888). Woking,  
 Surrey. M.B. Lond.
- KINNERSLY, G. E. (1888). Choisi,  
 Guernsey.
- KIRKPATRICK, J. M.D. Toronto.
- KISCH, A. (1861). 61, Portsdown  
 Road, Maida Vale.
- KITCHING, J. L. W. (1878). Cobham,  
 Surrey. D.P.H.
- KNAGGS, R. H. E. (1873). Diego  
 Martin, Trinidad, W. Indies.
- KNIGHT, H. (1888). Eskholme,  
 Shirley, Southampton.
- KNOCKER, W. D. (1889). Lilac Cottage,  
 Half Way Lane, Sidcup. M.B. Lond.  
 Clin. Asst. Skin and Electr. Depts.
- LABEY, J. (1880). The Myrtles, St.  
 Saviours, Jersey.
- LAKE, R. (1880). 19, Harley Street,  
 Cavendish Square. F.R.C.S. Asst.  
 Surg. Royal Ear Hosp., Surg.  
 Laryng. N. Lond. Hosp. for Con-  
 sumption.  
 w 1881-2. 2nd Year Student, Prosector's  
 Prize.  
 Clin. Asst. Ear Dept.
- LAKE, W. W. (1872). Topcroft,  
 Guildford, Surrey. D.P.H.  
 Obst. H.P.
- LAMB, J. H. (1895). Church Street,  
 Crewkerne, Somerset. M.B., C.M.  
 Edin.
- LAMBERT, F. S. (1885). Balgowan,  
 Newland, Lincoln.
- LAMBERT, T. W. (1887). Kamloops,  
 British Columbia, Canada. M.A.,  
 M.B., B.C. Cantab.  
 H.S., Clin. Asst. Skin Dept.
- LANCASTER, J. (1890). Lt.-Col., I.M.S.  
 Madras.
- LANDON, E. (1871). Dominion S.S. Co.
- LANGLEY, J. I. (1892). 317, Waterloo  
 Road, Hightown, Manchester.  
 M.D.
- LANGTON, C. B. T. (1883). The  
 Chestnuts, Chertsey.
- LANKESTER, A. C. (1885). C.M.S.  
 Medical Mission, Peshawur, India.  
 M.D. Lond.  
 w 1885-6. 1st Year Student, 1st Coll. Prize.  
 w 1886-7. 2nd Year Student, Half 1st and  
 2nd Coll. Prizes.  
 w 1888-9. 4th Year Student, The Cheselden  
 Medal.  
 H.S., A.H.S.
- LANKESTER, C. P. (1892). Peshawur.
- LANKESTER, F. J. (1882). 13, Belvoir  
 Street, Leicester. D.D.S. Penna.;  
 L.D.S.
- LANKESTER, H. (1849). 71, Evington  
 Road, Leicester. J.P.  
 1850. 1st Year Student, Scholarship;  
 Descriptive Anatomy, 1st Prize  
 Chemistry, Prize.  
 1851. Physiology, Prize;  
 Materia Medica, Prize;  
 Medicine, Prize;  
 1852. 3rd Year Student, Scholarship;  
 Medical Cases, President's Prize;  
 Medicine, Prize;  
 Surgery, Prize;  
 Surgery and Surgical Anatomy,  
 Cheselden Medal;  
 General Proficiency, Treasurer's  
 Medal.  
 1853. Surgical Essay, President's Prize.  
 H.S.
- LANKESTER, H. H. (1880). Church  
 Missionary Society, Salisbury Sqre.  
 M.D. Lond.  
 w 1880-1. Entrance Science Scholarship;  
 1st Year Student, 2nd Coll.  
 Prize.  
 w 1881-2. 2nd Year Student, The College  
 Scholarship, Two Years.  
 H.P., R.A.
- LASLETT, M. H. (1890). H.M. Dock-  
 yard, Chatham.
- LATTER, C. (1888). 10, Earl's Avenue,  
 Folkestone. B.A., M.D., B.C.  
 Cantab.  
 w 1890-1. 4th Year Student, The Mead  
 Medal.  
 H.P., Obst. H.P.
- LAUCLAN, C. A. (1890). 43, Clapham  
 Road. M.D., C.M. Montreal.
- LAVER, A. H. (1869). 1, Rutland  
 Park, Sheffield. M.D. Durh.  
 1870. 1st Year Student, 3rd Coll. Prize.  
 1871. 2nd Year Student, 2nd Coll. Prize.  
 w 1872. 3rd Year Student, 2nd Coll. Prize.  
 Cheselden Medal.  
 H.S., H.P.
- LAVER, H. (1854). Head Street, Col-  
 chester. J.P.
- LAVER, J. W. (1889). High Street,  
 Dedham, Colchester.  
 H.P., Clin. Asst. Skin Dept.
- LAVER, P. G. (1886). Head Street,  
 Colchester.
- LAW, R. R. (1889). The Maples, Sid-  
 cup, Kent. B.A., M.D., B.C. Cantab.  
 H.S., A.H.S., Clin. Asst. Skin Dept.

- LAWFORD, J. B. (1879). 99, Harley St., Cavendish Square. M.D. C.M. McGill, Montreal; F.R.C.S., Ophth. Surg. and Lect. on Ophthalmology St. Thos. Hosp. Surg. Roy. Lon. Ophth. Hosp. Ophth. Clin. Asst., A.H.P.
- LAWRIE, T. H. (1889). St. Clair, Polmont, Stirlingsh.
- LAWS, C. U. (1886). 1, St. George's Terrace, Newcastle-on-Tyne. M.D. Durh.
- LAWS, W.G. (1888). 3, East Circus St., Nottingham. M.B., C.M. Edin.; F.R.C.S. Ophth. H.S.
- LAWSON, R. (1889). 1, Marius Rd., Balham. Clin. Asst. Skin Dept.
- LAWTON, H. A. (1868). 98, High St., Poole, Dorset. M.D. Durh.; D.P.H.
- LAXTON, T. L. (1875). Artillery Camp, Pretoria, Transvaal. w 1876-7. 2nd Year Student, Prosector's Prize.
- LAYTON, F. G. (1890). The Lawn, Ablewell St., Walsall, Staff. H.P. Clin. Asst. Ear Dept.
- LEATHAM H. B. (1874). New Plymouth, New Zealand.
- LEDYARD, W. E. (1870). 231, Post Street, San Francisco, California, U.S.A. M.B. Toronto.
- LEES, J. (1859). 21, Brixton Rd. M.D. St. And. Demonstr. of Morb. Anat., Asst. Res. Med. Off., Med. Tutor and Registrar.
- LEESON, J. R. (1871). Clifden House, Twickenham, Middlesex. M.D., C.M. Edin. Demonstr. of Anat. and H.P.
- LEICESTER, T. (1880). The Cedars, 7, East Dulwich Road, East Dulwich.
- LESSEY, S. S. (1878). Carisbrooke House, Carisbrooke, I.W. M.D. Durh.
- LEVICK, H. D. (1887). 132, St. Paul's Terrace, Newport Road, Middlesborough. M.B., B.S. Lond.; F.R.C.S. Jun. Obst. H.P.
- LEWELLIN, A. J. R. (1877). Melbourne, Victoria, Australia. M.B., B.Ch. Melb.
- LEWERS, T. R. (1880). Lyntonstowe, Berry, New South Wales. M.B., B.Ch. Melbourne.
- LEWIS, C. M. (1881). Steyning, Sussex.
- LEWTAS, J. T. (1885). Lt.-Col. I.M.S. Bengal. Jun. Army and Navy Club, St. James's St. M.D., Lond.
- LIEBREICH, R. 44, Avenue Victor Hugo, Paris. Ophth. Surg.
- LIGHT, E. M. (1880). 2, Wilton Place, Belgrave Square. M.A., M.B., B.C. Cantab. Clin. Asst. Throat Dept.
- LIGHTFOOT, W. S. (1872). Staff-Surg. R.N.
- LINDLEY, L. H. (1891). 12, Radnor Place, Hyde Park. B.A., M.B., B.Ch. Oxon. Clin. Assist. Throat Dept.
- LINDSAY, H. S. (1885). Longreach, Queensland.
- LINGARD, A. (1870). Imperial Bacteriologist, Muktesar, Kumâon Hills, N.W.P., India. M.B., M.S. Durh.; D.P.H. H.P.
- LITHGOW, J. M. (1880). 39, Humberstone Road, Leicester. M.D., M.Ch. R.U.I.
- LITTELJOHN, S. G. (1864). Res. Med. Off. Central Lond. Distr. Schools, Hanwell. M.B., C.M. Edin.
- LIVESEY, E. W. (1885). The Square, Alderney, Channel Islands.
- LLEWELLYN, D. W. H. (1878). Southborough, Tunbridge Wells.
- LLOYD, A. (1857). 25, Larkhall Rise, Clapham.
- LOCKYER, C. W. (1886). 7, St. Julian's Farm Road, West Norwood.
- LODGE, P. G. (1893). 110, Preston Street, Listerhills, Bradford, Yorks.
- LODGE, S. (1888). 28, Manor Row, Bradford, Yorks. M.D., B.S. Durh.
- LOGAN, R. R. W. (1883). Ashby-de-la-Zouch.
- LONGINOTTO, M. J. (1889). 21, Central Road, Johannesburg.
- LONGMAN, A. (1877). Broad Chalk, Salisbury.
- LONGSTAFF, G. B. (1873). Highlands, Putney Heath, and Twicken, Mortoe, N. Devon. M.A., M.D., D.P.H. Oxon.; F.R.C.P.; L.C.C. w 1873-4. 1st Year Student, 2nd Coll. Prize. s 1874. 1st Coll. Prize. Physical Society's 1st Year's Prize. s 1875. 2nd Year Student, 2nd Coll. Prize. w 1875-6. 3rd Year Student, 1st Coll. Prize. w 1876-7. 4th Year Student, Mead Medal.



- LONNON, F. (1894). Fern House, 77, Denmark Hill. L.D.S.
- LOTZ, H. J. (1882). Freemantle, West Australia. D.P.H.
- LOW, H. (1885). 10, Evelyn Gardens, South Kensington. M.A., M.B., B.C. Cantab. Anæsthetist St. Thomas's Hospital. Tel. Linificus, London.  
H.P., R.A., S.O.C., Clin. Asst. Skin Dept.
- LOW, P. C. (1886). Elmstead, Beulah Road, Tunbridge Wells, Kent. B.A., M.B., B.C. Cantab.
- LOW, R. B. (1872). Local Govt. Bd., Whitehall and Helmsley House, Christchurch Road, Tulse Hill. M.D., C.M. Edin.; D.P.H. Cantab.
- LOWE, H. (1893). Eastbourne, Acock's Green, Worc.
- LUARD, H. B. (1885). Capt. I.M.S. Bengal. B.A., M.B., B.C., D.P.H. Cantab. F.R.C.S.  
s 1886. 3rd Year Student, 2nd Coll. Prize.  
H.P., R.A.
- LUCAS, G. (1863). Uckfield, Sussex.
- LUCAS, S. A. (1893). A.H.S.
- LUNN, J. R. (1874). Med. Superint. St. Marylebone Infirm., Notting Hill. F.R.C.S. Edin.  
H.S., R.A., A.H.S., A.H.P.
- LUSH, J. S. (1872). Ivy Cottage, Market Lavington, Devizes, Wilts.  
s 1873. 1st Year Student, 3rd Coll. Prize
- LUSH, W. H. (1869). Prospect House, Market Lavington, Devizes, Wilts.  
w 1872. 2nd Year Student, Prosecutor's Prize.
- LYNCH, G. W. A. (1882). Ba, Fiji. M.B., B.C. Cantab.
- LYON, T. G. (1878). 1, Victoria Square, Pimlico. M.A., M.D. Cantab.; M.R.C.P.  
H.P., Clin. Asst. Skin and Ear Dept.
- MACAULEY, W. G. R. (1888). Kings Lynn, Norfolk.
- MCCLEAN, J. F. (1893). British Seamen's Hospital, Constantinople.  
s 1895. 2nd Year's Student, 1st Coll. Prize.  
H.S., A.H.S., Obst. H.P.
- MACCORMAC, Sir William, Bart. K.C.V.O. 13, Harley Street, Cavendish Square. M.A.R.U.I. M. Ch. (hon. causâ). D. Sc., F.R.C.S.I.; Pres. R.C.S. Eng. Cons. Surg. to St. Thomas's Hospital; Emeritus Lecturer on Clinical Surgery Surgeon, Jt. Lect. on Surgery.
- MCCULLAGH, R. C. (1887). 179, Shankhill Rd., Belfast. B.A., M.D., M.Ch., R.U.I.
- MCDONNELL, J. O'M. (1879). Lt.-Col. I.M.S. Bengal (retired). M.D., M.Ch. R.U.I.; F.R.C.S.
- MCDUGALL, W. (1894). M.A., M.B., B.C. Cantab.  
w 1894-5. 3rd Year Student, University Scholarship.  
w 1896-7. 5th Year Student, Grainger. Testimonial Prize.  
H.P.
- MCDOWELL, D. K. (1886). c/o Messrs. Holt & Co., 17, Whitehall Place.
- MACEVOY, H. J. (1882). 41, Buckley Road, Brondesbury. M.D., B.Sc. Lond.  
w 1884-5. 3rd Year Student, Half 2nd and 3rd Coll. Prizes.  
s 1885. 3rd Year Student, Half 1st and 2nd Coll. Prizes.  
w 1885-6. 4th Year Student, Bronze Mead Medal.  
H.P., R.A., Clin. Asst. Throat and Ear Depts.
- MCGEAGH, W. S. (1880). 15, Louisville Road, Upper Tooting.
- MACGREGOR, R. D. 240, Hoxton Street, N.
- MCILROY, J. B. (1887). Annandale, Sydney, New South Wales.
- MAC KELLAR, A. O. 79, Wimpole Street, M.D., M.Ch., R.U.I., F.R.C.S. Surgeon, Res. Asst. Surg. Lect. on Forensic Medicine, and Practical Surgery.
- MACKENZIE, H. W. G. (1882). 59, Welbeck St., Cavendish Square. M.A. Edin.; M.A., M.D. Cantab.; F.R.C.P. Lond.; Assistant Physician to St. Thomas's Hospital and to the Hosp. for Consumption, Brompton; Demonstrator of Morbid Anatomy; Lecturer on Pharmacology and Therapeutics at St. Thomas's Hospital.  
w 1882-3. 3rd Year Student, 3rd Coll. Prize.  
s 1883. 3rd Year Student, 1st Coll. Prize.  
w 1883-4. 4th Year Student. The Mead Medal.  
Demonst. of Pract. Med., Resident Assistant Physician, Medical Registrar, H.P., A.H.P., and Clin. Asst. Skin Department.
- MACKINNON, A. D. (1887). Uganda, Brit. E. Africa. M.D. Aberd.
- MACKRETH, J. F. Keyingham, Holderness, Hull.
- MCLAUGHLIN, E. H. (1872). 45, Jeffreys Rd., Clapham Rd.
- MC LOUGHLIN, E. P. (1893). 427, Barking Road, Plaistow. M.B., B.Ch., B.A.O.
- MACLEAN, A. (1869). 24, Harwood Road, Fulham.
- MACLEAN, H. H. (1878).
- MACNAMARA, J. T. (1881). 50, Union Road, Rotherhithe.



- MAC RAE, F. (1888). 27, Mount St., Belgrave Sq. M.B., C.M. Aberd.
- MACTAVISH, J. W. (1886) travelling.
- MADDEN, T. P. (1877). Falmouth, Jamaica, M.D., M.Ch.R.U.I.
- MADDICK, E. D. (1874). 2, Chandos St., Cavendish Sq., F.R.C.S. Edin.
- MAILE, C. E. D. (1873). Dedham House, Dedham, Essex.
- MAKINS, G. H. (1871). 47, Charles Street, Berkeley Square. F.R.C.S. Surg., and Joint Teacher of Op. Surg. St. Thomas's Hospital; Exam. in Anat. for Conjoint Board Eng. and for Army, Navy and Indian Medical Services.  
Dean of Med. School Surg. Registr., Res. Asst. Surg., H.P., H.S.
- MANLEY, W. G. N. (1850). C.B., V.C. Surg.-Gen. R.A.M.C. (retired). 3, Lansdowne Terrace, Cheltenham.
- MANNERS, W. F. (1881). Pewsey, Wilts. B.A. Cantab.
- MANSEL-HOWE, S. I. (1871). Athelby, Hillbury Rd., Tooting. M.D. Brux. H.P., R.A.
- MANUK, W. W. 83, Old China Bazaar Street, Calcutta.
- MAPLES, R. (1870). Tower Hill House, Kingsclere, Newbury, Berks. H.S., R.A.
- MARCH, H. C. (1857). Portesham, Dorchester. M.D. Lond., J.P. 1858. 1st Year Student, Treasurer's 2nd Prize.  
H.S., R.A.
- MARETT, E. P. (1891).
- MARGENOUT, J. G. (1884). 59, Hayter Road, Brixton.
- MARLOW, F. W. (1876). 401, Montgomery St., Syracuse, New York. M.D.  
H.S., A.H.P., Oph. Clin. Asst.
- MARRIAGE, H. J. (1891). 35, Wickham Road, Beckenham. M.B. Lond. Surg. Registrar.  
w 1893-4. 2nd Year Student, 2nd Coll. Prize. Clin. Asst. Throat Dept.  
H.S., A.H.S.
- MARRINER, W. H. L. (1878). Craig Vaen, Poole Rd., West Bournemouth. M.B. Lond.  
Clin. Asst. Ear and Throat Depts.
- MARSDEN, T. (1877). Larkstone, Ilfracombe, N. Devon. M.D., C.M. Aber.
- MARSH, J. H. (1872). Heathfield, Sussex.
- MARSHALL, A. (1886). 145, London Rd. South, Lowestoft. M.D. Brux.
- MARSTON, F. E. (1877). High Street, Welshpool, Montgomeryshire. A.H.P.
- MARTIN, C. J. (1884). Physiological Lab., Univ. of Sydney, N.S. Wales. D.Sc., M.B. Lond.  
w 1884-5. 1st Year Student, 2nd Entrance Scholarship.
- MARTIN, F. R. (1895). B.A., M.B., B.C. Cantab.  
H.S., 2 mos., Clin. Asst. Ear and Throat Depts.
- MARTIN, J. S. (1896). Royal Infirmary, Sheffield. M.B., M.S. Edin.
- MARTIN, T. H. (1886). The Gables, Crawley, Sussex.
- MARTINEAU, A. J. (1891). General Hospital, Nottingham.  
s 1892. 1st Year Student, 1st Coll. Prize.  
w 1892-3. 2nd Year Student, 1st Coll. Prize.  
w 1893-4. 3rd Year Student, 2nd Coll. Prize.  
w 1894-5. 4th Year Student, Cheselden Medal (bronze) and Treasurer's Gold Medal.  
H.S., A.H.S.
- MASON, A. E. (1876). 61, Hillfield Road, West Hampstead.
- MASON, F. W. (1888). York Dispensary. York.
- MASON, G. A. (1888). 45, George St., Portman Square. M.A., M.B., B.C. Cantab.
- MASSEY, H. M. (1877). Hillgrove, New South Wales.
- MASSEY, H. T. (1875).
- MATHIAS, W. L. (1882). 114, Darlinghurst Road, Sydney, N.S. Wales.
- MATTEI, C. (1882). Perth, West Australia.
- MATTEI, E. (1879). Accra, Gold Coast, West Africa.
- MATTHEWS, C. E. (1885). Med. Superint. Fountain Hosp., Tooting Grove. B.A., M.D., B.Ch. Oxon., D.P.H.  
Clin. Asst. Throat Dept.
- MATURIN, B. A. (1883). Maj. R.A.M.C.
- MAUGHAM, W. S. 1, Lancaster Place, Strand.
- MAUNSELL, D. F. (1888). 67, Earl's Court Road, Kensington.
- MAURICE, O. C. (1856). 75, London Street, Reading.
- MAURICE, W. J. (1880). 11, Friar Street, Reading. M.A., M.B., B.Ch. Oxon.
- MAVOR, W. S. (1869). The Cottage, Waltham Cross, Herts. M.D. Durh. H.P.

- MAYBURY, A. C. (1861). 19, Bloomsbury Square. D.Sc. Lond.
- MAYBURY, A. V. (1869). Ashford House, Mile End, Landport. M.D., M.Ch. R.U.I.  
 1870. 1st Year Student, 2nd Coll. Prize.  
 1871. 2nd Year Student, 1st Coll. Prize.  
 w 1872. 3rd Year Student, 1st Coll. Prize ; Treasurer's Gold Medal.  
 H.S.
- MAYBURY, H. M. (1868). 27, Almeida St., Islington. M.D., M.Ch. R.U.I.  
 1869. 1st Year Student, 2nd Coll. Prize.  
 1871. 3rd Year Student, 3rd Coll. Prize.
- MAYBURY, L. (1874). 9, Hampshire Terrace, Southsea. M.D., M.Ch. R.U.I.
- MAYBURY, W. A. (1866). 9, West Stockwell Street, Colchester, Essex. M.D., M.Ch. R.U.I.  
 1867. 1st Year Student, 3rd Coll. Prize.
- MAYNARD, E. C. (1877). Arundel Lodge, Worthing.
- MAYNARD, J. C. M. (1854). Erith, Kent. M.R.C.P. Edin., J.P.
- MEACOCK, H. C. (1892). 19, North Brink, Wisbech, Cambridge.
- MEAD, H. T. H. (1856). Christchurch, Hants. (retired).
- MEADOWS, B. (1854). Park Hill, Clapham Park.
- MEADOWS, H. (1866). 33, London Rd., Leicester. M.B., C.M. Edin.  
 1867. 1st Year Student, The William Tite Scholarship ;  
 Phys. Soc. 1st Year's Prize.  
 1868. 2nd Year, Tite Scholarship ;  
 Phys. Soc. 2nd Year's Prize.
- MEASURES, J. W. (1868). 67, Oakfield Rd., Stroud Green. (Not practising.)
- MEGGITT, H. (1882). York Lodge, Norwood Road.
- MELSOME, W. S. (1890). 29, Circus, Bath. M.A., M.D., B.C. Cantab., F.R.C.S. Assist. Surg. Royal United Hospital. Late Demonstr. of Anat. Univ. Camb.
- MENNELL, Z. (1874). 1, Royal Crescent, Notting Hill.
- MERCES, J. (1880).
- MERRY, W. J. C. (1890). 2, Chiswick Place, Eastbourne. M.A., M.D., B.Ch. Oxon.  
 H.P., H.S., Clin. Asst. Skin Dept.
- METCALFE, A. W. (1887). 2, St. Leonards, York. M.A., M.D., B.C. Cantab.
- METCALFE, G. (1887). Union Hosp., Eastville, Bristol. M.D., B.S. Durh.
- METCALFE, R. (1856). Leyburn, Yorks. M.D. St. And.
- MICHAEL, H. J. (1874). Maj. R.A.M.C.
- MICKLE, W. J. (1867). Med. Superintendent. Grove Hall Asyl., Bow. M.D. Toronto, F.R.C.P.
- MIDDLETON, R. W. (1881). 17, Hartington Terrace, Beach Road, Southsea. M.B., C.M. Glasg.
- MIFSUD, A. E. (1881). 17, Strada Zaccaria, Valetta, Malta.
- MILLAR, A. F. (1893). Hollyhurst, 12, Northside, Clapham Common.
- MILLAR, W. H. (1886). St. Helier's, 26, Streatham Hill. M.D. Brux.  
 w 1888-9. 3rd Year Student, 2nd Coll. Prize.  
 s 1889. 3rd Year Student, 2nd Coll. Prize.  
 Clin. Asst. Throat Dept.
- MILLER, F. M. (1864). Northolme, High Road, Upper Clapton.
- MILLER, H. L. (1874). Warnnambool, Victoria, Australia.
- MILLER, J. (1877). 136, South Lambeth Road.
- MILLER, J. T. R. (1883). Castlegate House, 78, Castlegate, Malton, and Leavening, Kirkham Abbey, Yorks.
- MILLS, H. W. (1890). Ruardean, Glouc.
- MILLS, R. J. (1873). 35, Surrey St., Norwich. M.B., C.M. Aberd.
- MILLS-ROBERTS, R. A. (1893). Bodafon, Llanberis, N. Wales.
- MILLS-ROBERTS, R. H. (1882). Bodafon, Llanberis, N. Wales. F.R.C.S. Edin.
- MILTON, A. R. O. (1888). Hatton, Dickoya, Ceylon.  
 w 1891-2. 4th Year Student, The Mead Medal.  
 H.P., H.S., A.H.S.
- MILTON, F.R.S. (1884). Surgeon and Professor of Clinical Surgery. Kasr el-Aini Hospital, Cairo, Egypt. H.S., A.H.S.
- MILTON, H. M. N. (1876). Kasr el Aini Hospital, Cairo, Egypt. H.S., A.H.S., H.P., A.H.P.
- MILWARD, F. V. (1891). General Hospital, Birmingham. B.A., M.B., B.C. Cantab.  
 Clin. Asst. Skin and Ear Dept.
- MISKIN, E. (1888). Slade House, 173, Kennington Road. M.B. Lond.  
 s 1890. 2nd Year Student, 1st Coll. Prize.
- MISKIN, G. A. (1858). Slade House, 173, Kennington Rd. M.D. St. And.

- MISKIN, L. J. (1889). Public Hosp., Perth, Western Australia. M.B., B.S. Lond. F.R.C.S.  
w 1889-90. 1st Year Student, 2nd Coll. Prize.  
w 1890-1. 2nd Year Student, Half first and 2nd Coll. Prizes.  
s 1891. 2nd Year Student, 2nd Coll. Prize.  
H.S., A.H.S.
- MITCHELL, Rev. J. (1865). The Vicarage, Yealand Conyers, Carnforth. Lanc. M.D. St. And. M.R.C.P. Edin.  
1866. 1st Year Student, 2nd Coll. Prize; Phys. Society's 1st Year Prize.  
1867. 2nd Year Student, 2nd Coll. Prize.  
1868. 3rd Year Student, 2nd Coll. Prize.  
R.A.
- MONTAGUE, A. A. (1891). Fiji. M.B. Lond.
- MONTAGUE, A. J. H. (1881). 35, Potter St., Worksop. M.D. Durh. H.P., Clin. Asst. Skin Dept.
- MONTGOMERY, W. A. (1888). Oak House, Beckley, East Sussex.
- MOODY, J. M. (1871). Med. Superint. Lond. Co. Asyl., Cane Hill, Purley, Surrey.
- MOORE, H. M. (1888). Capt. I.M.S. Bombay.  
Clin. Asst. Ear Dept.
- MOORE, P. L. (1891). Fountain Hospital, Lower Tooting. M.A., M.B., B.C. Cantab.
- MOORES, S. G. (1882). Capt. R.A.M.C.
- MORETON, J. E. (1849). Tarvin, Chester. F.R.C.S.  
1850. 1st Year Student, Scholarship;  
1852. Physiology, Prize;  
Descriptive Anatomy, Prize;  
Physical Society's Essay, Prize;  
Medicine, Prize;  
Surgery, Prize;  
2nd Year Student, Scholarship.  
1853. 3rd Year Student, Scholarship;  
Physiology, Prize;  
Clinical Medicine, Pres. Prize;  
Clinical Medicine, Treas. Prize;  
Clinical Medicine, Mr. N. Smith's Prize;  
Ophthalmic Surgery, Prize;  
Medicine, Prize;  
Surgery and Surgical Anatomy, Cheselden Medal;  
Gen. Proficiency, Treas. Medal.  
1854. Clinical Med., Dr. Root's Prize.  
H.S.
- MORETON, R. (1890). Hartford, Cheshire.
- MORETON, T. (1856). Northwich, and Spring Mount, Hartford, Chesh. J.P.  
1857. 1st Year Student, Treasurer's 2nd Prize;  
Matriculation Examination, Classics and Mathematics, Prize.  
1858. Clinical Medicine, Prize.  
H.S., R.A.
- MORETON, T. W. E. (1885). Tarvin, Chester. B.A. Cantab.
- MORGAN, C. A. (1883). Travelling.
- MORGAN, L. W. (1861). The Hafod, Pont-y-pridd, Glamorg. M.D., C.M. Aberd. J.P.
- MORGAN, Ll. A. (1878). 118, Bedford Street, Liverpool. M.D. Durh.
- MORGAN, S. (1851). 15, Oakfield Rd., Clifton, Bristol. M.D. St. And. 1854. Forensic Medicine, 2nd Prize.
- MORGAN, W. (1872). 3, Adelaide St., Swansea.  
R.A.
- MORGAN, W. L. G. (1865). The Pines, Adeline Road, Boscombe, Hants.
- MORRIS, C. K. (1873). Gordon Lodge, Charlton Road, Blackheath.  
w 1875. Prosecutor's Prize.
- MORRIS, E. H. G. (1888). 8, Gloucester Terr., Onslow Gdns, S. Kensington. B.A., M.B., B.C. Cantab. Anaesthetist St. Thomas's Hospital. Tel.: "Emphatic London."
- MORRIS, E. W. (1882). Kembla House, Port Adelaide, S. Australia.
- MORRIS, J. E. (1867). Windhill, Bishop's Stortford, Herts. M.D. Durh.
- MORRIS, S. G. Plas cwmtrwch, Nant-garedig, Carmarthen. M.D., C.M. Edin.
- MORTON, J. (1860). Eastgate House, Guildford. M.B. Lond.  
H.S., R.A.
- MOSS-BLUNDELL, C. B. (1894).
- MOULLIN, J. A. M. (1871). 69, Wimpole St., Cavendish Square. M.A., M.B. Oxon.; M.R.C.P.  
H.P.
- MOXON, C. C. (1885). Corn Market, Pontefract.
- MUNRO, A. W. (1882). Liverpool Street, Sydney, N.S. Wales. M.D., C.M. Edin. F.R.C.S.
- MUSSON, A. W. (1887). 15, King St., Clitheroe, Lanc. B.A., M.B., B.C. Cantab.
- MUSSON, W. E. (1849). Mayfield, Clitheroe, Lanc.  
1850. Matriculation Scholarship, Prize.
- MYERS, W. (1894). 225, Hagley Rd., Birmingham. M.A., M.B., B.C. Cantab. B.Sc. Lond.
- NAIRN, R. (1881). Hastings, Napier, New Zealand. F.R.C.S.  
Ophth. Asst., H.P.
- NASH, E. H. T. (1890). 36, The Avenue, Bedford Park.  
1896. Solly Medal and Prize.  
H.P., Clin. Asst. Ear Dept.
- NAUTH, B. (1890). Surg.-Capt. I.M.S. Madras.
- NEATE, C. P. W. (1855). Stilton, 15, London Road, Forest Hill. F.R.C.P., F.R.C.S. Edin.

- NETTLESHIP, E. 5, Wimpole Street, Cavendish Square. F.R.C.S. Cons. Oph. Surg. St. Thomas's Hospital. Ophth. Surg., Dean of Med. Sch.
- NEWBOULD, N. J. (1878). Abbots Bromley, Rugeley, Staff.
- NEWHAM, H. B. G. (1893). 62, Sandmere Road, Clapham.
- NEWBY, C. H. (1866). 20, Landport Terr., Southsea, Hants. F.R.C.S. 1870. Prosecutor's Prize. Surg. Regist., H.S., H.P., R.A., Asst. Demonstr. of Anat.
- NEWCOMBE, C. F. (1882). Victoria, British Columbia. M.D., C.M. Aber.
- NEWINGTON, A. S. L. (1872). Woodlands, Titchurst, Sussex. M.B. Cantab. H.P.
- NEWINGTON, T. (1874). Ridgeway, Titchurst, Sussex. B.A. Cantab.
- NEWSHOLME, A. (1875). Town Hall, and 11, Gloucester Place, Brighton. M.D. Lond.; F.R.C.P. w 1875-6. 1st Year Student, 1st Coll. Prize. w 1876-7. 2nd Year Student, 1st Coll. Scholarship. s 1877. Ditto 1st Coll. Prize. w 1877-8. 3rd Year Student, The "College Scholarship," 1st Coll. Prize. H.P., A.H.P. A.H.S., R.A.
- NEWT, A. H. (1864). Hayward's Heath, Sussex. M.D. Aberd. Mem. Gen. Counc. Univ. Aberd.
- NICHOL, F. E. (1882). 11, Ethelbert Terr., Margate. M.A., M.B., B.C. Cantab. H.S., A.H.S., Clin. Asst. Skin Dept.
- NICHOLSON, F. (1872). 29, Albion St., Hull. M.D. Lond. Phys. Hull Roy. Infirm. w 1873. 1st Year Student, 1st Coll. Prize. s 1873. Ditto 1st Coll. Prize. w 1874. 2nd Year Student, 1st Coll. Prize. s 1874. Ditto 1st Coll. Prize. w 1875. 3rd Year Student, 1st Coll. Prize; Cheselden Medal; Mead Medal; Treasurer's Gold Medal. R.A., H.P., H.S.
- NICHOLSON, T. G. (1889). Palmers, Gt. Marlow. M.B., B.Sc. Lond. w 1889-90. 1st Year Student, 1st Entrance Science Scholarship. H.P., Clin. Asst. Skin Dept.
- NIVEN, J. (1878). Public Health Office, Town Hall, Manchester. M.A. Aberd.; M.A., M.B., B.C. Cantab.
- NIX, R. E. (1891). 12, Albey Hill, Bury St. Edmunds. B.A., M.B., B.C. Cantab. H.P.
- NOLAN, M. J. (1892). 2, Vine Street, Manchester.
- NORRIS, E. S. (1875). 117, High St., Eton, Bucks. M.A., M.B. Cantab. Med. Regist. and Asst. Demonstr. of Morb. Anat.
- NORRIS, H. L. (1893). Surg. R.N.
- NORTHCOTE, P. (1887). Billesdon, near Leicester. M.B. London. H.P.
- NORTON, J. J. (1887). Bagnalstown, Co. Carlow.
- NOWELL, A. H. (1856). Clarendon House, Mortlake.
- OBORN, H. W. (1885). 28, Hyde Vale, Greenwich.
- ODDIE, S. I. (1891). 5, St. Helen's Terrace, Hastings. M.B., C.M. Edin. Surg. R.N. (retired).
- ODLING, A. E. (1876). Alford, Linc.
- Ogilvie, J. (1890). Comely Park, Cromer. B.A. Cantab.
- OKELL, J. B. (1880). 2, Magdala Rd., Nottingham.
- OLIVEY, W. J. (1881). Lawlers, West Australia.
- ORANGE, W., C.B (1853). Bembridge, I.W. M.D. Heidelb., F.R.C.P. Lond.
- ORD, G. R. (1855). Streatham Hill.
- ORD, G. W. (1881).
- ORD, R. W. (1888). 4, Cambridge Terrace, Dover. M.A., M.B., B.C. Cantab. A.H.S.
- ORD, W. M. (1852). 37, Upper Brook Street. M.D. Lond., F.R.C.P. Cons. Physician to St. Thos. Hosp. 1853. Matriculation Exam. Scholarship; 1st Year Student, Scholarship; Descriptive Anatomy, Prize; Chemistry, Prize. 1854. 2nd Year Student, Scholarship; Medicine, Prize; Materia Medica, Prize; Physiology, Prize. 1855. 3rd Year Student, Scholarship; Surgery and Surgical Anatomy, Cheselden Medal; Forensic Medicine, Prize; Pathology, Prize; Practical Chemistry, Prize; Physiology, Prize; General Proficiency, Treasurer's Medal. 1856. Registrar, Prize. Physician, Joint Lecturer on Medicine, Lecturer on Comparative Anatomy, Physiology, and Practical Physiology, Demonstr. of Anat., Surg. Registr. and H.S.
- ORD, W.W. (1883). The Hall, Salisbury. M.A., M.D., B.Ch. Oxon. s 1884. 1st Year Student, 2nd Coll. Prize. w 1884-5. 2nd Year Student, Half 2nd Coll. Prize. w 1886-7. 4th Year Student, Mead Medal. H.P., H.S., A.H.S.
- ORFORD, J. (1877). Starfield House, Pontefract, Yorks. H.S., H.P., R.A.
- ORISADIPE OBASA (1885) of Ikija (Prince), Lagos, W. Africa.
- ORONHYATEKHA, A. (1894). 24, Charing Cross. M.D. Toronto.



- OSBORN, S. (1867). 1A, Devonshire Street, Portland Place. F.R.C.S., J.P. Surgeon to the Hospital for Women, Soho Square.  
1870. Physical Society, 2nd Year's Prize. Surgical Registrar, H.S., H.P., R.A.
- OSBORNE, A. (1892). 4, Norfolk Crescent, Bath.
- OSBORNE, F. (1882). 12, Duchess St., Portland Place.
- OSBURN, H. B. (1884). Bagshot, Surrey. D.P.H.  
R.A., S.O.C.
- OWEN, C. W. (1869). C.I.E., C.M.G. Lt.-Col. I.M.S. Bengal.
- PAGE, F. W. T. (1891). 60, Westbourne Park Villas, Bayswater.
- PALIN, E. W. (1891). 18, Gloucester Rd., Ross. M.A., M.B., B.Ch. Oxon. H.P., Clin. Asst. Ear Dept.
- PALIN, H. V. = Wrexham. M.B., C.M. Edin., J.P. Mayor of Wrexham, 1889-90-1.
- PALMER, A. M. (1867). Whittington, Chesterfield.
- PALMER, H. G. (1879). 83, Milkwood Road, Herne Hill.
- PALMER, H. J. (1874). Montague House, Gamlingay, Cambridge.
- PANIOTY, J. E. (1878). 1, Larkin's Lane, Calcutta, India.
- PAPILLON, J. W. (1876). Brent Knoll, Bridgwater, Somers.
- PAPILLON, T. A. (1876). 3, Pevensey Rd., St. Leonard's-on-Sea. F.R.C.S. Edin.
- PARK, J. R. S. (1879). 183, King Street, Dukinfield, Cheshire.
- PARKER, G. R. W. (1885). 19, Derby Lane, Stoneycroft, Liverpool. M.A. Cantab.
- PARKER, G. W. (1860). 11, Brandenburg Road, Chiswick. M.R.C.P. Lond. M.R.C.P. Edin.
- PARKER, R. W. (1860). 13, Welbeck Street, Cavendish Square.
- PARKER, W. T. (1873). 68, Lillie Road, Fulham.
- PARROTT, J. (1869). Stanhoe House, Grove Vale, East Dulwich.
- PARSEY, E. W. (1886). Glenavon, King's Norton, Worc. M.A., M.B., B.C. Cantab.
- PARSON, F. J. (1865). 112, Victoria Street, Westminster.
- PARSON, H. (1869). Bondfield, Bursledon, Hants. (retired).
- PARSONS, A. C. (1892). 4, The College, Epsom.
- PARSONS, C. O. (1882). 202, Castle Road, Roath, Cardiff.
- PARSONS, F. G. (1881). 17, Michel-dever Road, Lee. F.R.C.S., Lect. on Comp. Anat. and Elem. Biol., Lect. and Demonstr. of Anat. at St. Thomas's Hospital. Exam. in Anat. for F.R.C.S., and in Biology for Conjoint Board. Exam. in Anat. and Supt. of Dissections, Apoth. Hall.  
w 1882-3. 2nd Year, Prosector's Prize.  
w 1886-7. 6th Year, Grainger Testimonial Prize.
- PARSONS, W. D. (1836). 32, Huskisson Street, Liverpool.
- PARTRIDGE, W. T. (1877). 97, Albany Road, Old Kent Road.
- PATCH, H. H. L. (1885). The Fernery, Chudleigh, S. Devon.
- PATTIN, H. C. (1883). Municipal Offices, Norwich. M.A., M.D., B.C., D.P.H. Cantab. Med. Off. Health, Norwich.
- PAULING, W. T. (1886). Cape Town.
- PAYNE, J. F. 78, Wimpole Street, Cavendish Square. B.A., M.D. Oxon.; B.Sc., F.R.C.P. Lond.; Phys. and Jt. Lect. on Med. St. Thos. Hosp. Lect. on Pathology and Morbid Anatomy. Radcliffe Travelling Fellow, Oxford.
- PEARCE, F. H. (1893). Madeley Court, Salop. B.A. Cantab.
- PEARCE, G. H. (1886). 8, Elm Tree Rd., St. John's Wood.
- PEARSE, A. W. (1882). East Cowton, Northallerton.
- PEARSON, H. L. (1883). Bay House, Holt Hill, Tranmere, Birkenhead, and Devon House, Bedford Rd., Rock Ferry, Ches.
- PEATLING, A. V. (1889). College Gate, Worcester. B.A., M.B., B.C. Cantab.
- PECK, F. S. (1878). Major I.M.S. Bengal.
- PEDLEY, R. D. (1877). 17, Railway Approach, London Bridge. F.R.C.S. Edin.; L.D.S. Demonstr. of Dent. Surg.
- PEGG, J. H. (1892). The Firs, Styvechale, Coventry.
- PELL, W. (1884). 23, Broadway, Barking.
- PENHALL, J. T. (1852). Broadwas-on-Teme, Worc. (retired). M.D. St. And., F.R.C.S.



- PENTREATH, L. N. (1890). Chapel Lodge, Folkestone. M.A. Oxon.
- PERKINS, A. L. (1875). Sketty, Swansea.
- PERKINS, J. J. (1888). 41, Wimpole Street, M.A., M.B., B.C. Cantab.; M.R.C.P. Assist. Phys., Joint Lecturer on Pathology, Demonstrator of Morbid Anatomy, and of Morbid Histology and Bacteriology, Teacher of Pract. Med., St. Thos. Hosp. w 1888-9. 3rd Year Student, 1st Coll. Prize. H.P.
- PERN, A. (1864). Botley, Southampton. F.R.C.S., D.P.H.
- PERN, E. C. (1888). Droxford, Hants.
- PERRIN, T. (1893).
- PERRY, E. L. (1890). Lieut. I.M.S., Bengal. w 1891-2. 2nd Year Student, 2nd Coll. Prize. w 1892-3. 3rd Year Student, 2nd Coll. Prize.
- PERSHOUSE, FRANK (1889). The Limes, Tillingham, Southminster, Essex.
- PERSHOUSE, F. (1886). Asst. Med. Off. S.-West. Fev. Hosp., Stockwell. H.P., Clin. Asst. Skin Dept.
- PETMAN, A. P. (1853).
- PETTIGREW, A. J. W. (1871). Church St., Camperdown, Victoria, Australia.
- PHELPS, A. M. (1873). 37, Compton Terrace, Highbury. M.A., M.D. Cantab.
- PHILIPS, W. H. G. (1852). Weston-super-Mare. M.D. Aberd.
- PHILLIPS, A.O.H. (1871). Warwick, Queensland.
- PHILLIPS, A. S. (1883). 16, St. Cuthbert's, Bedford.
- PHILLIPS, E. J. M. (1874). 33, Rodney Street, Liverpool. L.D.S., Hon. Dent. Surg. Liverp. Roy. Infirm., Lect. on Dent. Surg. Univ. Coll. Liverp.
- PHILLIPS, E. V. (1881). Kibworth, Leicester. D.P.H.
- PHILLIPS, G. C. J. (1890). General Hospital, Cheltenham. M.A., M.D., B.C. Cantab.
- PHILLIPS, G. G. (1858). Tickhill, Rotherham, Yorks. 1860. 3rd Year Student, 3rd Coll. Prize. H.S.
- PHILLIPS, H. J. (1892). A.H.S.
- PHILLIPS, J. R. P. (1885). 5, Addison Road, N., Notting Hill.
- PHILLIPS, P. C. (1886). Vine House, Grantham. Clin. Asst. Skin Dept.
- PHILLIPS, S. C. (1882). 90, Hill Street, Peckham.
- PICKFORD, J. K. (1871). High Cliff Ter., Cleethorpes, Gt. Grimsby, Linc. w 1872. 1st Year Student, 3rd Coll. Prize.
- PIETERSEN, J. F. G. (1879). Ashwood House, Kingswinford, Staff. w 1883-4. Solly Medal and Prize. Clin. Asst. Throat Dept.
- PIGGOTT, F. C. H. (1882). 13, Orchard Gdns., Teignmouth, S. Devon. B.A., M.D., B.C. Cantab.
- PIERCE, R. W. C. (1893). Trinity Villa, Llandudno. M.B., B.Sc. Lond.; D.P.H. Camb. w 1893-4. 1st Year Student, 1st Entrance Sci. Scholarship, 1st Coll. Prize. s 1894. 1st Year Student, 2nd Coll. Prize. w 1894-5. 2nd Year Student, 1st Coll. Prize. w 1895-6. 3rd Year Student, 2nd Coll. Prize. s 1896. 3rd Year Student, 2nd Coll. Prize. H.P.
- PIKE, J. B. (1870). 15, High Street, Loughborough.
- PILCHER, C. W. (1896). Boston, Lincs. 1888. The Solly Medal and Prize.
- PINTO, J. O. (1886). Capt. I.M.S. Madras.
- PITTS, B. (1873). 109, Harley St., Cavendish Square. M.A., M.B., M.C. Cantab., F.R.C.S., Surgeon and Lect. on Surg. St. Thos. Hosp.; Surg. Hosp. for Children, Gt. Ormond St. Exam. in Surgery, Univ. Camb. Res. Asst. Surg., Demonstrator of Anat., H.S., R.A.
- PITTS-TUCKER, F. A. (1886).
- PLANCK, C. (1888). County Asylum, Haywards Heath. M.A. Cantab. w 1888-9. 1st Year Student, 2nd Coll. Prize. w 1889-90. 2nd Year Student, The Peacock Scholarship. s 1890. 2nd Year Student, 2nd Coll. Prize. w 1890-1. 3rd Year Student, 2nd tenure of Peacock Scholarship, with 3rd Coll. Prize. H.S., A.H.S., Clin. Asst. Ear Dept., Asst. Demonstrator of Pract. Surg.
- PLANT, C. (1882). Dalton-in-Furness, Lanc.
- PLOWMAN, S. (1879). Victoria. F.R.C.S.
- PLOWMAN, T. A. B. (1881). Greenway, North Curry, Taunton.

- POCOCK, A. G. C. (1877). Manor View, High Road, Streatham.
- PODMORE, R. (1870). 7, Linden Gardens, Chiswick.
- POLLARD, F. (1864). Hatherleigh, 11, St. James's Road, Upper Tooting. M.D. Lond.  
1865. 1st Year Student, 2nd Coll. Prize.  
1866. 2nd Year Student, 2nd Coll. Prize; Physical Society's 2nd Year's Prize.  
1868. 3rd Year Student, 1st Coll. Prize; Physical Society's 3rd Year's Prize; Cheselden Medal.  
Med. Regist., H.S., R.A.
- POMEROY, W. (1889). Queen Camel, Bath.
- POOLE, C. N. F. (1886). 16, Cicada Road, St. John's Hill, Wandsworth.
- PORTER, G. (1886). Frascati, St. James's Rd., Surbiton. M.D., C.M. Edin.
- POTTER, H. P. (1871). Med. Superint. Kensington Infirm. M.D. Durh., F.R.C.S., D.P.H.  
1872. 3rd Coll. Prize.  
w 1873. 2nd Year Student, 2nd Coll. Prize; Prosector's Prize.  
w 1874. 3rd Year Student, 1st Coll. Prize; Cheselden Medal.  
1875. Grainger Testimonial Prize. Surgical Registrar, H.S., H.P., R.A.
- POTTER, J. H. (1881). Cullompton, Devon.
- POULTON, B. (1879). Adelaide, S. Australia. M.D.
- POWELL, C. (1895). Wandsworth Union Infirmary. B.A., M.B., B.C. Cantab.
- POWELL, J. J. (1887). Highworth, Wilts. M.A., M.B., B.C. Cantab.
- POWELL, J. J. (1874). Norwood Lodge, Weybridge, and Byfleet, Surrey.
- POWER, C. J. (1879). Hazelwood, Nailsworth, Glouc. M.A. Cantab., M.D. Dub.
- POWERS, R. H. (1886). 2, Bigby St., Brigg, Lincolnshire.
- POYNDER, G. F. (1871). Maj. R.A.M.C.
- PRAIN, J. L. (1888). Eveline Hosp., Southwell, S.W. F.R.C.S.  
H.S., A.H.S., Clin. Asst. Throat Dept.
- PRALL, C. B. (1887). Capt. I.M.S. Bengal.
- PRANGLEY, H. J. (1875). Tudor House, Anerley, S.E.
- PRICE, A. (1869). Merriebank, Moss Lane, Aintree, Liverpool
- PRICE, A. E. (1884). Denstone, Winchester. M.B. Lond.  
Clin. Asst. Ear and Skin Depts.
- PRICE, D. (1891). Glanmorlais, Kidwelly, Carmarthenshire.
- PRICE, W. T. (1876).
- PRIESTLEY, C. E. (1870). 1, Dorset Gardens, Brighton.
- PRING, H. R. (1888). 252, Liverpool Road, Islington.
- PRINGLE, A. Y. (1884). 36, Cambridge Gdns., Notting Hill.  
Clin. Asst. Throat Dept.
- PRIOR, J. (1890). House Surg. Dewsbury and Distr. Gen. Infirm.
- PROCTOR, C. E., Sowerby Grange, Thirsk.
- PROCTOR, S. F. (1874). Trinidad, W. Indies.
- PRONGER, C. E. (1872). East Parade, Harrogate, Yorks. F.R.C.S.
- PUGH, J. H. (1871). c/o General Manager, Government Life Insurance, Wellington, New Zealand. B.A. Cantab.
- PURKISS, A. (1875). Alumchynne Rd., West Bournemouth. M.D., C.M. Aberd.
- PURVIS, G. C. (1882). Colonial Bacteriological Institute, Grahams-town, Cape Colony. M.D., C.M. Edin., B.Sc.
- PURVIS, J. P. (1860). 38, Royal Hill, Greenwich.
- PURVIS, P. (1833). 5, Lansdowne Place, Blackheath. M.D. Lond.
- PURVIS, W. P. (1887). 2, Avenue Place, Southampton. M.D., M.S., B.Sc. Lond.; F.R.C.S.  
H.S., H.P., A.H.S., Clin. Asst. Throat Dept.
- PYWELL, P. D. (1893). 244, Westminster Bridge Road.
- QUAIT, A. W. (1887). St. Brannock's, Mundesley, Norfolk.
- QUILLER, C. T. (1882). St. Paul's Close, Rectory Grove, Clapham.
- RABY, J. (1862). Ashford House, Barnstaple. Maj. I.M.S. Retired. R.A.
- RADCLIFFE, H. H. (1842). Ballarat, Victoria, Australia.
- RANSON, W. (1888). Co. Infirmary, Downpatrick, co. Down. F.R.C.S. Edin.
- RAY, W. J. O. (1889). Southery, Downham Market.  
Clin. Asst. Throat Dept.

- RAYNER, H. (1861). 16, Queen Anne Street, and Upper Terrace House, Hampstead. M.D., C.M. Aberd.; M.R.C.P. Edin.; Lect. on Psychology at St. Thomas's Hosp.  
1862. 1st Year Student, 1st Coll. Prize.  
1863. 2nd Year Student, 1st Coll. Prize.  
Lecturer on Psychology at Middlesex Hospital, and Medical Superintendent Hanwell Asylum.
- READ, A. E. (1881).
- REDDY, H. L. (1876). 999, Dorchester St., Montreal, Canada. M.D., C.M.
- REDPATH, W. (1888). Geelong Mining Co., Gwanda, Rhodesia. M.B. Lond.  
H.S., A.H.S., Asst. Teacher Pract. Surg.
- REED, W. H. (1861). Allersleigh, Westbury, Wilts.
- REID, R. G. (1890). 176, Lambeth Road. M.B., C.M. Glasg.
- REID, R. W. 37, Albyn Place, Aberdeen. M.D., C.M. Aberd.; F.R.C.S., Prof. of Anat. Univ. Aberd.  
Joint Lect. on and Sen. Demonstr. of Anat., Joint Demonstr. of Morb. Anat.
- REID, S. B. (1895). Elderslie, Oamaru, New Zealand. B.A., M.B., B.C. Cantab.
- REILLY, C. C. (1880). Maj. R.A.M.C.
- RELTON, B. (1879). 50, Church St., Rugby.  
1880. 2nd Entrance Science Scholarship.  
H.S., A.H.S., Asst. Demonstr. of Pract. Surg.
- RENDLE, G. 113, Sunderland Road, Forest Hill. Sec. Med. Sch. (1883).
- RENNY, E. G. (1886). Priory House, Wellesley Road, Colchester.
- REVELY, J. S. (1885). Cheviot House, Tettenhall, Staffs. M.D. Durh.
- REYNOLDS, C. A. (1895). Su-sex County Hospital. M.B., B.Ch. Oxon. D.P.H. Oxon.
- RICHARDS, L. W. (1891). M.B., B.S. Durh.  
H.P. Clin. Asst. Throat Dept.
- RICHARDSON, C. B. (1875). 2, Tisbury Road, West Brighton. M.D., C.M. Aberd.  
A.H.P., A.H.S.
- RICHARDSON, J. C. R. (1887). The Beeches, Saxmundham, Suffolk. M.A., M.B., B.C. Cantab.
- RICHARDSON, S. W. F. (1889). 47, Gower Street. M.B., B.S., B.Sc. Lond.; F.R.C.S. Demonstr. of Pract. Surg.  
w 1889-90. 1st Year Student, The William Tite Scholarship.  
s 1890. 1st Year Student, 2nd Coll. Prize.  
w 1890-1. 2nd Year Student, The Musgrove Scholarship.  
w 1891-2. 3rd Year Student, 2nd Tenure of Musgrove Scholarship.  
s 1892. 3rd Year Student, 1st Coll. Prize.  
w 1892-3. 4th Year Student, The Cheselden Medal;  
The Treasurer's Gold Medal.  
H.S., A.H.S., Obst. H.P. Demonstrator of Physiology.
- RICHMOND, R. T. The Abbey, Carlisle.
- RIDGE, J. J. (1863). Carlton House, Enfield, Middlesex. M.D., M.D. (State Med.), B.S., B.A., B.Sc. Lond.  
1864. 1st Year Student, The William Tite Scholarship.  
1865. 2nd Year of Tite Scholarship;  
Physical Society's 2nd Year's Prize;  
Prosector's Prize.  
1866. The Grainger Testimonial Prize.  
1868. 3rd Year Tite Scholarship;  
Treasurer's Gold Medal.  
H.S.
- RIDSDALE, A. E. (1888). Rottingdean, Sussex.
- RIGBY, C. S. A. (1878). 28, Winckley Sq., Preston, Lanc. M.B., C.M. Aberd.
- RIGBY, P. A. (1873). Purulia, Maubhum, Bengal, India.
- RITCHIE, E. D. (1883). Chandler's Ford, Hants. M.A., M.B., B.C. Cantab.  
H.S., A.H.S., H.P., A.H.P.
- ROALFE-COX, W. J. (1881). The Laurels, Mortimer, Reading, Berks.
- ROBATHAN, G. B. (1866). The Grove, Risca, Newport, Mon.
- ROBERTS, C. H. Durban, Natal.
- ROBERTS, E. A. (1884). 19, Cliveden Place, Eaton Square. M.D. Lond.
- ROBERTS, O. (1874). 32, Craven Park Road, Harlesden.
- ROBERTSON, C. (1883). Alicedale, Cape Colony. M.R.C.S., J.P.
- ROBINSON, A. C. (1892). 60, Waterloo, Northampton.  
w 1896-7. 5th Year Student, The Cheselden Medal.  
H.S., A.H.S.
- ROBINSON, G. W. (1873). Maj. R.A.M.C.

- ROBINSON, H. B. (1879). 1, Upper Wimpole Street. M.D., M.S. Lond., F.R.C.S. Assistant Surgeon, Surgeon for Diseases of the Throat, and Lecturer and Dem. of Anatomy at St. Thomas's Hospital. Surgeon to the East London Hospital for Children, Shadwell.  
s 1881. 2nd Year Student, 1st Coll. Prize. Resident Assistant Surgeon, H.P., H.S., A.H.S.
- ROBINSON, J. C. R. (1889). Harleston, Norfolk.
- ROBINSON, M. A. (1869). Travelling.
- ROBINSON, S. C. B. (1874). Maj. R.A.M.C.
- ROBINSON, S. R. (1836). 68, Fenwick St., Geelong, Victoria, Australia.
- ROBINSON, W. H. (1882). 14, Upper Queen's Terrace, Fleetwood, Lanc.
- ROBSON, C. (1882).
- ROBSON, R. B. (1887). 20, Bondgate Without, Alnwick, Northld. M.B. Durh.
- ROBSON, W. W. C. (1878). Walkeringham, Gainsboro', Linc.
- ROCK, C. H. (1887). Surg. R.N. 65, Granville Park, Lewisham.
- ROCKLIFFE, W. C. (1871). 17, Charlotte Street, Hull. M.A., M.B. Cantab.; M.D. Dub. Hon. Oph. Surg. Hull Royal Inf. and Blind Instn.
- ROE, A. D. (1880). 47, West Hill, Wandsworth. B.A., M.B. Cantab.  
w 1880-1. 3rd Year Student, 2nd Coll. Prize.
- ROE, E. A. H. (1889). Lt.-Col. R.A.M.C. (retired).
- ROLL, G. W. (1884). 6, Gloucester Rd., South Kensington. B.A., M.B., B.C. Cantab. F.R.C.S. Ophth. H.S.
- ROLPH, J. WIDNER. Kuantau, *vid* Singapore, Strait Settlements.
- ROMER, H. (1884). 68, Killieser Avenue, Streatham Hill. M.A., M.B., B.Ch. Oxon.
- RONALD, A. E. (1886). Shakespeare Road, Hawkes Bay, Napier, New Zealand. B.A., M.B., B.C. Cantab.
- ROPER, H. (1890). Lynton, North Devon. B.A., M.B., B.C. Cantab.
- RORIE, J. (1846). Dep. - Insp. - Gen. R.N. (retired).
- ROSS, E. H. (1892). Ulverston, Surbiton Hill. H.P., A.H.P.
- ROSS, H. C. (1892). Ulverston, Surbiton Hill.
- ROSSER, W. (1865). Glenalmond, Wellesley Road, Croydon, Surrey. M.D. Aberd. H.S.
- ROSSITER, G. F. (1870). Cairo Lodge, Weston-super-Mare. M.B. Lond.  
1871. 1st Year Student, 1st Coll. Prize.  
w 1872. 2nd Year Student, 2nd Coll. Prize.  
s 1872. 1st Coll. Prize.  
w 1873. 3rd Year Student, 3rd Coll. Prize; Cheselden Medal; Treasurer's Gold Medal.  
H.P., H.S., R.A.
- ROSTANT, A. A. (1887). Port of Spain, Trinidad.
- ROTH, W. E. (1884). Normanton, North Queensland.
- ROTHERHAM, A. (1892). Lond. Co. Asyl., Epsom, Surrey. M.A., M.B., B.C. Cantab.
- ROUILLARD, J. A. A. (1891). Lady-smith, Natal.  
Clin. Asst. Throat Dept.
- ROUILLARD, L. A. J. (1886). Durban, Natal. M.B. Camb.; F.R.C.S. H.S., A.H.S.
- ROUND, J. C. (1884). Purbrook, 19, Crescent Wood Road, Sydenham Hill. L.D.S.
- ROUSE, R. E. (1878). Royal Societies Club, St. James' St., S.W. (summer); and Winter Palace, Monte Carlo (winter). M.D. Lond.  
s 1880. 2nd Year Student, 3rd Coll. Prize. H.P., R.A.
- ROWE, W. J. V. (1875).
- RUDALL, J. F. (1890). 121, Collins Street East, Melbourne. M.B., B.S. Melb. Ophth. H.S.
- RUDALL, J. T. (1851). 61, Spring Street, Melbourne, Victoria, Australia. F.R.C.S.
- RUGG, J. F. (1873). 25, High St., Hastings.
- RUSSELL, A. E. (1889). Melton House, 43, Manor Park, Lee. M.D., B.S. Lond.; Med. Regis. and Demonstrator of Practical Medicine.  
w 1889-90. 1st Year Student, 2nd Entrance Science Scholarship; 1st Coll. Prize.  
s 1890. 1st Year Student, 1st Coll. Prize.  
w 1890-1. 2nd Year Student, Half 1st and 2nd Coll. Prizes.  
w 1891-2. 3rd Year Student, 1st Coll. Prize. H.P., H.S., A.H.S., Clin. Asst. Skin Dept. Demonstrator of Physiology.
- RUSSELL, J. (1890). Brunswick St., Batley, Yorks. M.A. Aberd., M.D., C.M. Edin.
- RUSSELL, J. S. R. (1886). 4, Queen Anne St., Cavendish Square. M.D. C.M. Edin.; F.R.C.P. Lond.
- RUTHERFOORD, H. T. (1886). Salisbury House, Taunton. M.A., M.D. Cantab.
- RYGATE, R. (1877). Wardington, Banbury, Oxon.



- SALISBURY, C. R.** (1887). Alverston House, 183, Evering Road, Stoke Newington.
- SAMS, J. S.** (1854).
- SANDERSON, A. R. P.** (1891). Eureka City, Barberton, Transvaal.
- SANDWICH, F. M.** (1872). Cairo, Egypt, and Savile Club, London. M.D. Durh.; M.R.C.P. Lond.; Phys. and Teacher of Clin. Med. Kasr el Aini Hosp., Cairo; Exam. in Med. and Path. at Med. Sch. H.P., R.A.
- SANEYOSHI, Y.** (1879). Tokio, Japan. F.R.C.S.  
w 1881-2. 3rd Year Student, 1st Coll. Prize. H.P., A.H.P., A.H.S.
- SANGUINETTI, H. H.** (1895). N. Staff. Infy., Stoke-on-Trent. B.A. Oxon. H.S., A.H.S.
- SANKEY, E. H. O.** (1891). Boreatton Park, Baschurch, Salop. M.A., M.B., B.C. Cantab.
- SANSOM, H. A.** (1882). The Glen, 127, West End Lane, West Hampstead. M.D. Lond.  
A.H.P., Clin. Asst. Throat and Skin Depts.
- SAPARA, O.** (1887). Lagos, W. Africa.
- SARGENT, P. W. G.** (1895). 80, Pembroke Road, Clifton, Bristol. B.A., M.B., B.C. Cantab.  
w 1895-6. 3rd Year Student, University Scholarship.  
A.H.S., Clin. Assist. Skin Dept.
- SARKIES, S. C.** (1877). Maj. I.M.S. Madras.
- SAUNDERS, C. E.** (1861). Med. Superint. Sussex Co. Asyl., Hayward's Heath. M.D., C.M. Aberd.; M.R.C.P., D.P.H.  
Surg. Regist., R.A.
- SAUNDERS, E. A.** (1889). Milton Heath, Dorking. M.A., M.B., B.Ch. Oxon. D.P.H. Oxon., M.R.C.P. Asst. Physn. W. Lond. Hosp.  
w 1892-3. 4th Year Student, The Mead Medal.  
H.P. Obst. H.P. Ophth. H.S.
- SAUNDERS, Sir Edwin.** (1836). Fairlawn, Wimbledon Common (retired). F.R.C.S., Surg.-Dent. to H.M. the Queen and T.R.H. the Prince and Princess of Wales, also to his late R.H. Prince Consort.  
Lect. on Anat. and Dis. of the Teeth.
- SAUNDERS, F. E.** (1886). 154, High Street, Battersea.
- SAUNDERS, H.** (1882). The Priory, Deddington, Oxon. B.A. Cantab.
- SAUNDERS, H. W.** (1866). M.B. Lond., F.R.C.S.  
1867. 1st Year Student, 2nd Coll. Prize.  
1868. Prosector's Prize.  
1869. 3rd Year Student, 1st. Coll. Prize; Treasurer's Gold Medal;  
Physical Society's 3rd Year's Prize.
- SAUNDERS, W. S.** (1843). 13, Queen Street, Cheapside, and 58, Onslow Gdns., South Kensington. M.D. Castleton U.S.  
1845. Medicine, Prize;  
Midwifery, Prize;  
Clinical Medicine, Prize.
- SAVILL, T. D.** (1875). 60, Upper Berkeley St., Portman Sq. M.D. Lond., D.P.H. Cantab.  
w 1875-6. 2nd Entrance Science Scholarship;  
1st Year Student, The William Tite Scholarship.  
s 1876. 3rd Coll. Prize.  
s 1877. 2nd Year Student, 2nd Coll. Prize.  
H.P., A.H.P., R.A.
- SAYRES, A. W. F.** (1885). Woodford, Essex. M.D. Brux.  
Clin. Asst. Ear. Dept.
- SAYERS, M. J. H.** (1889). H.S. Royal Berks Hospital, Reading.
- SCAPING, H. M.** (1895). B.A. Cantab. Jun. Obst. H.P. Clin. Assist. Skin Depart.
- SCATCHARD, J. P.** (1892). Tadcaster, York. M.B., B.S. Lond.  
w 1892-3. 1st Year Student, 1st Coll. Prize.  
s 1893. 1st Year Student, 2nd Coll. Prize.  
w 1893-4. 2nd Year Student, 1st Coll. Prize.  
w 1895-6. 4th Year Student, The Cheselden Medal, Treasurer's Gold Medal.  
H.P. Junr. Obst. H.P.
- SCHILLING, G.** (1885). 18, Charleville Road, West Kensington.
- SCOTT, E.** (1870). M.D. Durh. D.P.H.
- SCOTT, E. H.** (1892).
- SCOTT, H. H.** (1893). Breaston, Derby. H.P.
- SCOTT, J. R.** (1885). Market Overton, Oakham, Rutland.
- SCOTT, J. W.** (1875). 11, St. George's Parade, Wolverhampton.
- SCUDAMORE, L.** (1886). 23, Granville Park, Blackheath.  
Clin. Asst. Skin. Dept.
- SCUTT, T. H.** (1879). Colne Lodge, Staines, Middlesex.  
w 1882-3. 3rd Year Student, 1st Coll. Prize.  
A.H.P.
- SEAR, J. T.** (1888). 79, Tyrwhitt Rd., Brockley.
- SEATON, E.** (1865). The Limes, 56, North Side, Clapham Common. M.D., F.R.C.P. Lect. on Pub. Health St. Thos. Hosp.; Exam. in Pub. Health and State Med. R.C.S. Eng. and Univ. Lond.
- SECCOMBE, P. J. A.** (1890). 45, Madeley Rd., Ealing. M.A., M.B., B.C. Cantab.  
H.P., Clin. Asst. Throat and Electr. Depts.
- SEDDON, H. B.** (1883). 40, Chepstow Rd., Newport, Mon.  
A.H.P., Clin. Asst. Throat and Ear Dept.



- SEDGWICK, H. R. (1892). Onslow Villa, Richmond Road, Kingston-on-Thames. M.A., M.B., B.C. Cantab. Clin. Asst. Skin Dept.
- SEDGWICK, J. (1853). Boroughbridge, Yorks. M.D. St. And. J.P.
- SEDGWICK, L. W. (1847). 48, Gloucester Terrace, Hyde Park. M.D., St. And.
1848. Descriptive and Surgical Anatomy, Prize;  
Physiology and Anatomy, Prize;  
Midwifery, Prize;  
Surgery, Prize.
1849. Physiology, 1st Prize;  
Midwifery, 1st Prize;  
Surgery, Prize;  
Medicine, 1st Prize;  
General Proficiency, Treasurer's Medal.
- SELIGMANN, C. G. (1892). Salters' Company, Research Fellow, 1899.  
w 1892-3. 1st Year Student, 2nd Entrance Science Scholarship; Half 2nd Coll. Prize.  
w 1896-7. The Bristow Medal.  
H.P. Clin. Asst. Electrical Dept.
- SEMON, Sir F. 39, Wimpole Street, Cavendish Square. M.D. Berlin;  
F.R.C.P. Lond. Late Phys. for Dis. of Throat St. Thos. Hosp.
- SENIOR, E. W. (1886). Hamilton Villa, Herne Bay.
- SEON, G. E. (1877). Dellwood, Liebenwood Road, Reading.
- SERGEANT, E. (1867). County Offices, Preston, Lanc. L.S.Sc. Durh.  
1870. 3rd Year Student, 3rd Coll. Prize;  
Cheselden Medal.  
H.S., R.A.
- SERS, C. H. (1868). 130, Queen's Rd., Peckham.
- SHACKEL, G. A. (1880). 8, Corve St., Ludlow, Salop.
- SHARKEY, S. J. (1873). 22, Harley Street, Cavendish Square. M.A., M.D. Oxon.; F.R.C.P.; Gulst. Lect. 1886. Phys., Jt. Lect. on Med. St. Thos. Hosp.; Late Exam. in Path. Univ. Oxf. Exam. in Medl. Anat. and Principles and Pract. of Med. R.C.P. Lond.  
Lect. on Pathology, Demonstrator of Morbid Anatomy, and Res. Asst. Phys.; Radcliffe Travelling Fellow, Univ. Oxf.
- SHARMAN, M. (1885). Rickmansworth, Herts. M.B., C.M. Glasg. D.P.H.
- SHARPLES, M. W. (1896). 57, Battersea Rise, Wandsworth. M.B., C.M. Aberd.
- SHATTOCK, S. G. 4, Crescent Road, Wimbledon. F.R.C.S. Curator of Museum and Jt. Lect. on Pathology. Path. Curator, Royal Coll. Surg.
- SHAW, A. E. (1885).
- SHAW, J. C. 233, Wightman Road, Harringay.
- SHAW, J. (1874). 32, New Cavendish St., Cavendish Square. M.D. Lond.  
w 1874-5. 1st Year Student, 1st Coll. Prize.  
s 1875. 1st Coll. Prize.  
w 1875-6. 2nd Year Student, 1st Coll. Prize.  
H.P., A.H.P., R.A.
- SHAW, W. H. C. (1885). The Grange, Chew Magna, Somerset. M.A., M.B., B.C. Cantab.
- SHEA, H. F. (1892). Royal Infy., Hull. M.B., B.S. Durh.  
H.P., Sen. Obst. H.P.
- SHEARER, D. F. (1886). Eversfield House, Warminster, Wilts. B.A., M.B., B.Ch. Oxon.; F.R.C.S.  
1888. 2nd Year Student, Half 2nd Coll. Prize.  
H.P., H.S., A.H.S., Clin. Asst. Throat Dept.
- SHEPHEARD, H. (1887). The Hollies, North Walsham, Norfolk.
- SHEPHEARD, J. (1887). Cromer Rd., North Walsham, Norfolk. B.A. Cantab.
- SHEPHEARD, P. C. (1859). Aylsham, Norfolk.
- SHEPHERD, H. B. (1882). Peveril House, Castleton, Sheffield.
- SHEPHERD, F. J. (1873). 152, Mansfield St., Montreal. M.D. McGill; Professor of Anatomy, McGill University; Senior Surgeon Montreal General Hospital.
- SHEPHERD, T. W. (1873). Castle St. House, Launceston, Cornwall.
- SHEPPARD, W. J. (1878). 211, Upper Richmond Road, Putney. M.D., M.S. Durh.  
w 1880-1. 3rd Year Student, 3rd Coll. Prize.  
w 1881-2. The Treasurer's Gold Medal.  
R.A., H.P., A.H.P., A.H.S.
- SHERRINGTON, C. S. (1876). M.A., M.D., F.R.S. Prof. of Physiology, University College, Liverpool. Fellow of Gonville and Caius College, Cambridge. Physiological Society Hon. Sec.  
w 1882-3. 6th Year, Grainger Testimonial Prize.  
Lecturer on Physiology.
- SHIRRES, G. (1880). Ocean Grove, Victoria, Australia. M.D., C.M., D.P.H. Aberd.
- SHIRTLIFF, E. D. (1882). 23, Carisbrook Road, St. Leonards-on-Sea.  
w 1882-3. 2nd Entrance Science Scholarship.
- SIDDALL, G. O. (1853). Late R.N.
- SIDDALL, J. B. (1860). Conybeard, Northan, Bideford. M.D., C.M. Aberd., D.P.H.

SIKES, A. W. (1892). St. Thomas's Hosp. M.D., B.S., B.Sc. Lond. F.R.C.S. Demonstrator of Physiology.  
w 1892-3. 1st Year Student, 1st Entrance Science Scholarship, the Wm. Tite Scholarship.

s 1893. 1st Year Student. 1st Coll. Prize.  
w 1893-4. 2nd Year Student, the Peacock Scholarship.

w 1894-5. 3rd Year Student, 1st Coll. Prize, with 2nd tenure of Peacock Scholarship.

s 1895. 3rd Year Student. 1st Coll. Prize.  
w 1895-6. 4th Year Student, the Mead Medal.

w 1896-7. 5th Year Student, the Treasurer's Gold Medal.

w 1897-8. The Bristowe Medal.  
H.P.

SIMMONS, E. L. (1856). St. Kilda, Victoria, Australia.

SIMMONDS, H. M. (1847). 66, Camberwell Road.

SIMON, Sir John, K.C.B. (1833). 40, Kensington Sq. F.R.C.S. (Hon.), F.R.S., Hon. M.D. et Chir. Munich, Hon. M.D. Dub., Hon. D.C.L. Oxon., Hon. LL.D. Cantab. et Edin. Cons. Surg. (formerly Surg. and Lect. on Path.) St. Thos. Hosp.

SIMON, M. F. (1865). Singapore, Straits Settlements. M.D. St. And.; L.D.S. Edin.

1866. 1st Year Student, 1st Coll. Prize.

1869. 3rd Year Student, 3rd Coll. Prize; Prosector's Prize; Prize and Hon. Cert. for Surgery and Surgical Anatomy.

SIMPSON, C. B. (1889). Highfield, Budleigh Salterton, Devon.

SIMPSON, H. (1889). Market Weighton, East Yorks. B.A., M.B., B.C. Cantab.

w 1889-90. 3rd Year Student, 3rd Coll. Prize. A.H.S., Clin. Asst. Ear Dept.

SIMS, D. (1888). 260, Meanwood Road, Leeds.

SIMS, G. S. (1880). The Hollies, Green Hill, Derby.

s 1881. 1st Year Student, 3rd Coll. Prize.

SIMSON, F. T. (1897). Craven House, Northumberland Avenue.

SINCLAIR, D. (1887). 6, East Park Terrace, Maryhill, Glasgow. M.B., C.M. Glasgow.

SINGER, H. D. (1893). 5, Old Park Villas, Palmers Green. M.B. Lond., Assist. to the Supt. of the Clin. Laby.

w 1893-4. 1st Year Student, 2nd Coll. Prize.

w 1894-5. 2nd Year Student, 2nd Coll. Prize.

w 1898-9. The Bristowe Medal.

H.P.

SINGH, B. J. (1888). Capt. I.M.S. Bengal.

SISSONS, W. H. (1857). 3, Priestgate, Barton-on-Humber, Linc. J.P.

1858. Matriculation Examination-Physics, &c., Prize.

1859. Clinical Medicine, Prize; Physical Society's Essay, Prize.

1860. 3rd Year Student, 2nd Coll. Prize; Physical Society's Prize.

H.S.

SKARDON, T. G. (1854). Brig.-Surg. I.M.S., Bengal. (Retired).

SLATER, J. S. (1867). Evesham, Worc. J.P.

1868. 1st Year Student, 1st Coll. Prize.

1869. Physical Society's 2nd Year's Prize.

1870. 3rd Year Student, 2nd Coll. Prize; Treasurer's Gold Medal.

H.P., R.A.

SLAUGHTER, C. H. (1853). Insp.-Gen. R.N. (retired).

SLAUGHTER, W. B. (1866). Lt.-Col. R.A.M.C.

SLIPPER, T. (1831). 30, St. Saviour's Road, W. Croydon, Surrey.

SLOCOCK, R. (1889). Spilsby, Lincs.

SMART, W. H. (1882). Polesworth, Tamworth, Warwk. M.A., M.B. Cantab.

SMITH, A. (1878). Bank House, 54, Stockwell Green.

SMITH, C. C. (1873). Redditch, Worcester. B.A., M.B. Cantab. H.S., R.A.

SMITH, C. J. (1856). 2, Medina Villas, Brighton.

SMITH, E. (1888). Wallace Lodge, Balham High Road, Upper Tooting. M.D. Lond.

w 1888-9. 1st Year Student, 2nd Entrance Science Scholarship; The William Tite Scholarship.

s 1889. 1st Year Student, 1st Coll. Prize.

w 1889-90. 2nd Year Student, 1st Coll. Prize.

w 1890-1. 3rd Year Student, 2nd Coll. Prize.

s 1891. 3rd Year Student, 2nd Coll. Prize; Treasurer's Gold Medal.

H.S., A.H.S.

SMITH, E. L. T. (1873). Seaford House, 1, Upper Richmond Road, Putney.

SMITH, F. J. P. (1881). 103, East St., Walworth.

SMITH, F. W. (1863). 40, Newington Causeway.

SMITH, H. (1851). Belmont, Ryde, I.W. (retired).

SMITH H. (1857). Blackrod, Chorley, Lanc.

SMITH, H. E. (1887). Gleneagle House, Streatham. M.A., M.B., B.C. Cantab.

SMITH, J. 23, Park Road, Plumstead, Kent.

SMITH, J. (1892). 18, Putney Hill. M.A., M.B., B.C. Cantab.; F.R.C.S. H.S., A.H.S.

- SMITH, J. B. (1881). 4, Holmdene Avenue, Half Moon Lane, Dulwich.
- SMITH, J. H. (1891). 1, Cambridge Rd., Downs Hall, Guildford.
- SMITH, R. P. (1874). 36, Queen Anne St. M.D., B.S., F.R.C.P. Lect. on Psychological Med. Char. Cross Hosp. s 1876. 2nd Year Student, 2nd Coll. Prize. Res. Asst. Phys., H.P., A.H.P., H.S. A.H.S., Demonst. of Pract. Phys.
- SMITH, S. L. (1870). 25, Argyle Square, King's Cross.
- SMITH, W. H. (1854). Cranmore, Royal St. West, Sandown, I. W.
- SMITH, W. H. (1877). Kings Sutton, Banbury, Oxford.
- SMYTH, H. J. (1882). South Molton, N. Devon.  
w 1882-3. 1st Year Student, 3rd Coll. Prize.  
s 1883. 1st Year Student, 1st Coll. Prize.  
w 1883-4. 2nd Year Student, 1st Coll. Prize.  
s 1884. 2nd Year Student, 2nd Coll. Prize.  
w 1885-6. 4th Year Student, Treasurer's Gold Medal.  
H.P., R.A., Clin. Asst. Skin Dept.
- SNAITH, F. (1861). 5, Pump Square, Boston, Linc. M.D., C.M. Aberd.
- SNOAD, E. H. (1849). Aylestone Park, Leicester.
- SOLLY, E. (1882). Strathlea, Coldbath Road, Harrogate. M.B. Lond.; F.R.C.S.; D.P.H.  
w 1883-4. 2nd Year Student, 2nd Coll. Prize.  
w 1885-6. Solly Medal and Prize.  
Surg. Regist., A.H.S., R.A., Clin. Asst, Skin and Ear Depts.
- SOLLY, R. V. (1883). 40, West Southernhay, Exeter. M.D., B.S. Lond.; F.R.C.S.  
w 1884-5. 2nd Year Student, Half 2nd Coll. Prize.  
H.S., A.H.S., Clin. Asst. Skin Dept.
- SOLLY, S. E. (1863). Colorado Springs, Colorado, U.S.A.  
Med. Registr.
- SOMERS, C. D. (1893). Deodara, Portsmouth Rd., Surbiton. B.A., M.B., B.C. Cantab.
- SOUTH, R. E. E. (1882). Church Close, Boston, Linc. J.P.
- SOUTHERN, F. G. (1881). Pant-y-r-odin, Llandeibie, S. Wales.
- SOUTHERN, J. A. (1878). Friar Gate, Derby.
- SOWERBY, T. (1848). Welshpool, Montgomery.
- SPARKE, G. W. (1850). Mansfield, Notts.
- SPAULL, P. W. (1888). 1, Stanwick Road, West Kensington.
- SPEED, H. A. (1871). 26, East Road, City Road.
- SPENCER, M. H. (1885). 95, St. Mark's Road, North Kensington. M.A., M.D., B.C. Cantab.  
H.P., Ophth. Asst.
- SPITTA, E. J. Ivy House, Clapham Common.
- SPRAKELING, R. J. (1854). 58, Merton Rd., Bootle, Liverpool. J.P. 1856. Clin. Med. Prize.
- SQUANCE, T. C. (1880). 15, Grange Crescent, Sunderland. M.D., M.S. Durh.; L.S.Sc. Phys. and Path. Sunderland Infirmary.
- STABB, A. F. (1885). 109, Harley St. M.B., B.C. Cantab. M.R.C.P. Lond. Asst. Obst. Phys. St. George's Hospital; Univ. Lect. on Midwifery, Cambridge.  
w 1885-6. 1st Year Student, 1st Entrance Science Scholarship;  
The William Tite Scholarship.  
s 1886. 1st Year Student, 2nd Coll. Prize.  
w 1886-7. 2nd Year Student, The Musgrove Scholarship.  
s 1887. 2nd Year Student, 1st Coll. Prize.  
w 1887-8. 3rd Year Student, 2nd Tenure of Musgrove Scholarship, with 1st Coll. Prize.  
w 1888-9. Treasurer's Gold Medal.  
Obst. Tutor and Registrar. H.S., A.H.S.
- STABB, E. C. (1882). 57, Queen Anne Street. F.R.C.S. Asst. Surg. Gt. Northern Hospital.  
w 1883-4. 2nd Year Student, Prosector's Prize.  
s 1884. 2nd Year Student, 1st Coll. Prize. Resident Assistant Surgeon, Surg. Regist., Demonstr. of Pract. Surg., Chief Asst. Throat Dept., Jun. Dem. of Anatomy.  
H.S., A.H.S., R.A., Clin. Asst. Throat and Ear Depts.
- STABB, F. A. (1885). St. John's, Newfoundland.
- STABB, W. W. (1888). Croft Lodge, Torquay. B.A., M.D., B.C. Cantab.  
w 1889-90. 4th Year Student, The Mead Medal.  
H.P.
- STABLEFORD, F. B. G. (1893). Tau Glas, Whitchurch, Glamorganshire.
- STACY, J. H. (1883). 38, St. Giles Street, Norwich.
- STADDON, H. E. (1887). Lieut. R.A.M.C.
- STADDON, J. R. (1880). 6, Silent St., Ipswich.  
A.H.P.
- STADDON, W. J. (1881). The Priory, St. Nicholas, Ipswich.
- STAINER, E. (1893). South Parkes Rd., Oxford. B.A., M.B., B.Ch. Oxon.  
H.P. Clin. Asst. Skin and Elect. Depts.
- STALLARD, H. (1889). Stow-on-the-Wold, Gloucester. B.A. Cantab.
- STANFORTH, J. W. (1887). The Anchorage, Hinderwell, Yorks.
- STARES, C. L. B. (1888). Wands-worth Union Infy., St. John's Hill.
- STARK, M. D. (1875). 6, Broad St., Oxford. M.D., C.M. Trin. Coll. Toronto.
- STARTIN, J. (1870). 15, Harley St., Cavendish Square.

- STATHAM, R. W. (1878). The Hall, Cheddar, Somerset.
- STAVELEY, W. H. C. (1881). 13, South Eaton Place. F.R.C.S. H.S., A.H.S., A.H.P., Clin. Asst. Ear Dept.
- STEDMAN, S. B. (1889).
- STEEVES, G. W. (1880). 53, Parkfield Rd., Princes Pk., Liverpool. B.A. New Brunswick, M.D. Brux.
- STEPHENS, W. J. (1886). Cross Tree House, Moreton, Hampstead, Devon.
- STEVENS, A. E. (1892). 5, Culmington Road, Ealing. M.B. Durh. H.P., Clin. Asst. Skin Dept.
- STEVENS, B. C. (1893). Huddersfield Infirmary. M.B., B.S. Durh.
- STEVENSON, E. S. (1871). Strathallan House, Rondebosch, Cape Colony. M.D. Brux.; F.R.C.S. Edin.
- STEVENSON, R. A. (1893). St. George's Union Infirmary, Fulham Road.
- STEWART, C. Royal College of Surgeons, Lincoln's Inn Fields. Prof. of Comp. Anat. and Phys., and Conserv. of Museum R.C.S. Eng. F.R.S. Curator of Museum and Lecturer on Physiology and Comparative Anatomy.
- STEWART, G. I. T. (1897). Banchoory Devenick, nr. Aberdeen. M.B., C.M. North Devon.
- STEWART, C. H. (1888). Witheridge, North Devon.
- STILES, H. T. (1851). Spalding, Linc. M.D. St. And.; J.P.
- STILWELL, G. R. F. (1886). 14, Southend Rd., Beckenham, Kent. M.B. Lond. H.P.
- STOCKS, F. (1863). 421, Wandsworth Road. R.A.
- STOKER, G. (1880). 14, Hertford St., Mayfair, and Dunloe Castle, Killarney, Co. Kerry. M.R.C.P.I., J.P.
- STOKES, W. (1856). Buckingham House, 51, Foster Hill Road, Bedford (retired).
- STOKES, W. (1888). Pilgrims' Rest, Lydenburg, Transvaal. M.B. Lond.
- STONE, F. W. S. (1878). 50, Kempshott Rd., Streatham Common. H.P.
- STONE, W. G. (1889). 93, Denmark Hill. M.A., M.B., B.Ch. Oxon. F.R.C.S. H.S., A.H.S. Clin. Asst. Ear and Elect. Depts.
- STORRAR, R. L. (1888). The Mount, Wolstanton, Stoke-on-Trent.
- STRANGE, R. G. (1890). 2, Belsize Avenue, Hampstead. H.S., A.H.S. Clin. Asst. Ear Dept.
- STRANGE, W. H. (1861). 2, Belsize Av., Hampstead. M.D., C.M. Aberd.
- STRIDE, J. (1861).
- STRONG, G. Ross, Herefordsh. M.D. Edin.
- STUART, J. B. Berth Dhu, West Shore, Llandudno. F.R.C.S. Edin., J.P.
- STUART, T. E. (1882). 30, West Street, Harwich, Essex.
- STUART-LOW, W. (1887). 50, Herne Hill. F.R.C.S.
- STURDEE, F. H. (1891). 19, Highbury Place, N.
- SUGDEN, E. S. (1880). 77, Walton Vale, Aintree, Liverpool. M.D. Durh.
- SULLIVAN, E. H. C. (1880). 53, Bath Street, St. Helier, Jersey.
- SUMMERHAYES, H. (1860). B.A. Lond. 1861. Matriculation Examination—Classics and Mathematics, President's Prize; Modern Languages, &c., Coll. Prize; Physics and Natural History, Coll. Prize; The William Tite Scholarship. 1862. 2nd Year Tite's Scholarship. 1863. 3rd Year Tite's Scholarship; Treasurer's Gold Medal. H.S., R.A., Surg. Registrar.
- SUMMERHAYES, W. (1855). 127, Inverness Ter., Hyde Pk. M.D. Durh. 1856. Matriculation Examination—Modern Languages, Prize.
- SUTCLIFF, E. (1860). Gt. Torrington, Devon. M.D., C.M. Aberd. Mem. Gen. Counc. Univ. Aberd. 1861. 1st Year, 3rd Coll. Prize; 1863. 3rd Year Student, 3rd Coll. Prize.
- SUTCLIFF, E. H. (1891). Gt. Torrington, Devon. M.B., B.S. Durh.
- SUTCLIFF, J. H. (1851). Farfield House, Ripley, Surrey (retired).
- SUTCLIFFE, J. (1867). Ashbourne House, 625, Wandsworth Rd. 1869. Prosecutor's Prize.
- SUTCLIFFE, P. T. (1896). Royal Navy. B.A., M.B., B.C., Cantab.
- SUTCLIFFE, W. G. (1888). Hampden House, 50, Clifton Terrace, Cliftonville, Margate. F.R.C.S. w 1888-9. 1st Year Student, 1st Coll. Prize. s 1889. 1st Year Student, 2nd Coll. Prize. w 1889-90. 2nd Year Student, 2nd Coll. Prize. w 1891-2. 4th Year Student, The Cheselden Medal. H.S., A.H.S.
- SUTTER, R. R. (1892). Poplar and Stepney Sick Asylum, Bromley. M.B., C.M. Aberd.
- SUTTON, Rev. F. W. (1875).
- SUTTON, H. M. (1878). Bagdad, Turkey-in-Asia.
- SUTTON, S. W. (1875). 172, Castle Hill, Reading. M.D., B.S. Lond. H.P., A.H.S., A.H.P., R.A.
- SUZUKI, S. (1886). Tokio, Japan.
- SWALE, H. (1875). Meadowsides, 23, Upper Richmond Road, Putney. M.B. Lond. A.H.P., A.H.S.



- SWALLOW, A. J. (1885). 5, Mount Edgcombe Gdns., Clapham Rise. M.B., B.S. Durh. Clin. Asst. Skin Dept.
- SWALLOW, J. D. (1859). Clifton Lodge, Clarence Rd., Clapham Park. M.D. St. And.
- SWEET, J. L. (1838). Tenbury, Worc.
- SWEETAPPLE, H. A. (1888). Parkside, Adelaide, S. Australia. M.D., B.S. Durh.
- SWINDELLS, E. (1886). Kingsbridge, Torcross, S. Devon.
- SWINHOE, A. C. (1890). Park House, New Swindon, Wilts.
- SWINHOE, G. R. (1887). New Swindon, Wilts.
- SYMONS, R. FOX (1888). Trevathan, Christchurch Road, Streatham H.S., A.H.S.
- TAKAKI, K. (1875). Tokio, Japan. F.R.C.S., Director-General of the Medical Department Imperial Japanese Navy, Surgeon to the Tokio General Hospital.  
w 1875-6. 1st Year Student, 3rd Coll. Prize.  
s 1876. 2nd Coll. Prize.  
w 1876-7. 2nd Year Student, 1st Coll. Prize.  
s 1877. 2nd Year Student, 3rd Coll. Prize.  
w 1877-8. 3rd Year Student, 2nd Coll. Prize.  
w 1878-9. 4th Year Student;  
The Cheselden Medal;  
The Treasurer's Gold Medal.  
H.S., R.A., A.H.P.
- TAKAYASU, M. (1890). Shichome, Osaka, Japan.  
w 1892-3. 2nd Year Student, The Musgrove Scholarship.  
s 1893. 2nd Year Student,  $\frac{1}{2}$  1st and 2nd Coll. Prizes.  
w 1893-4. 3rd Year Student, 2nd tenure of Musgrove Scholarship.
- TANNER, H. (1895). Hartington House, Devonshire Road, South Lambeth. F.R.C.S.
- TARZEWELL, J. (1843). Sturminster Newton, Blandford, Dorset. (retired).
- TATE, W. W. H. 57, Queen Anne St., Cavendish Square. M.D. Lond., M.R.C.P. Asst. Obst. Phys. Lect. on Midwifery, St. Thomas's Hosp. Obst. Tutor and Registrar St. Thos. Hosp.
- TATHAM, E. (1873). 51, Cambridge Road, Hammersmith.
- TAYLOR, D. (1878). Hyla Kandy, Cachar, Bengal. M.D., R.U.I.
- TAYLOR, F. P. (1865). Charlottetown, Prince Edward Island, Canada.
- TAYLOR, G. E. O. (1891). Bayside, Durban, Natal.  
H.S., A.H.S., Clin. Asst. Skin Dept.
- TAYLOR, S. (1869). 16, Seymour St., Portman Square. M.D., C.M. Aberd., M.R.C.P. Assistant Physician West London Hospital.  
Demonstrator of Anatomy.
- TAYLOR, S. J. (1874). 44, Prince of Wales Road, Norwich. M.B., C.M. Edin.  
w 1875-6. 2nd Year Student, The Musgrove Scholarship.  
w 1876-7. 3rd Year Student, 2nd Year Musgrove Scholarship, and 1st Coll. Prize.  
w 1877-8. The Mead Medal;  
The Treasurer's Gold Medal.
- TEALE, M. A. (1889). 5, Blenheim Terrace, Leeds.  
1894. Solly Medal and Prize.
- TEBB, W. S. (1883). 21, Beverley Rd., Anerley. M.A., M.D. Cantab., D.P.H. Clin. Asst. Throat Dept.
- TEBBS, L. V. (1887).
- TERRY, J. (1884). The Hall, Daventry, Northants.
- THOMAS, D. E. (1873). Eastfields, Chestow Road, Newport, Mon.
- THOMAS, J. T. (1882). Penven, Camborne, Cornwall.
- THOMAS, J. W. (1876). The Wern, Neath, Glamorg.
- THOMAS, P. C. (1884). Cape Town.
- THOMAS, R. W. (1867). Temple House, Rye Lane, Peckham.
- THOMPSON, C. H. (1879). Jun. Constitutional Club, Piccadilly. M.A., M.D. Dub., M.R.C.P., D.P.H.
- THOMPSON, F. H. (1868). Cleobury Mortimer, Salop.  
1870. Prosecutor's Prize.
- THOMPSON, G. W. (1890). 6, West Street, Scarborough. M.D., B.A., M.B., B.C. Cantab.  
H.P., H.S.
- THOMSON, G. J. C. (1873). 111, Sinclair Road, West Kensington Park. M.D. Durh.
- THORMAN, W. H. (1891). Royal United Hosp., Bath. B.A. Cantab. Clin. Asst. Skin Dept.
- THORNELLY, W. (1891). 60, Herne Hill. B.A., M.B., B.C. Cantab. Clin. Asst. Throat and Elect. Depts.
- THORNTON, A. C. (1885). 11, Argyle Road, Castle Hill, Ealing.
- THORNTON, F. B. (1891). Grove Ter., Osmaston Road, Derby. M.B., B.S. Lond.  
w 1894-5. 4th Year Student, The Mead Medal.  
H.P.
- THORP, A. E. (1889). R.A.M.C.
- THORP, H. C. (1895). M.A., M.B., B.C. Cantab.  
H.P., A.H.P.
- THUDICHUM, J. L. W. (1878). 11, Pembroke Gdns., Kensington. M.D. Giessen, F.R.C.P.  
Lect. on Path. Chem.
- THURNAM, W. R. (1886). Nordrach-upon-Mendip, Blagdon, Somerset. M.D., B.S. Durh.



- THURNELL, H. L. (1889). 3 and 6, Woodville, Gravesend. M.A. Cantab.
- THURSTAN, E. P. (1874). St. George's Ter., Perth, Western Australia. M.D. Cantab.
- THURSTON, E. O. (1890). 27, Panton St., Haymarket. M.B., B.S. Lond. F.R.C.S. Surgical Registrar.  
s 1892. 2nd Year Student, Half 1st and 2nd Coll. Prizes.  
w 1892-3. 3rd Year Student, Half 3rd Coll. Prize.  
w 1893-4. 4th Year Student, Cheselden Medal.  
H.S., A.H.S., Clin. Asst., Ear Dept.
- THURWAITES, G. B. (1893). H.P., Clin. Assist. Throat Dept.
- TIMOTHY, P. V. (1848). 1851. Practical Midwifery, Prize.
- TIMS, H. W. M. (1889). West. Hosp. Med. Sch. Caxton St. M.D., C.M. Edin. Lect. on Biol. and Comp. Anat. Westm. Hosp. Med. Sch.
- TINLEY, W. E. F. (1891). Thorsgrif, Whitby, Yorks. M.D., B.S. Durh.  
w 1891-2. 2nd Year Student, 1st Coll. Prize.  
s 1892. 2nd Year Student, Half 1st and 2nd Coll. Prizes.  
w 1892-3. 3rd Year Student, Half 3rd Coll. Prize.  
s 1893 3rd Year Student, 2nd Coll. Prize. Obstet. H.P.
- TODD, F. (1879). 21, Finsbury Circus. L.D.S., Dent. Surg. Roy. Free Hosp.
- TODD, H. J. McC. (1872). Staff Surg. R.N.
- TOLLER, N. P. F. (1885).
- TOLLER, S. G. (1885). M.D. Lond., M.R.C.P. Phys., and Prof. of Clin. Med. at Kasr-el-Aini Hospital, Cairo.  
w 1885-6. 1st Year Student, 2nd Entrance Science Scholarship.  
s 1886. 1st Year Student, 1st Coll. Prize.  
w 1886-7. 2nd Year Student, Half 1st and 2nd Coll. Prizes.  
w 1887-8. 3rd Year Student, 2nd Coll. Prize.  
w 1888-9. 4th Year Student, The Mead Medal.  
Asst. Phys.; Med. Regist., Demonstr. of Pract. Med., Res. Asst. Phys.  
H.P., H.S., A.H.S., Jun. and Sen. Ophth. H.S., Clin. Asst. Throat and Ear Depts.
- TOMBLESON, J. B. (1895). Overtown House, Spring Grove, Middlesex. B.A., M.B., B.Ch. Oxon. Obst. H.P.
- TOMPSETT, R. H. (1884).
- TOMSON, W. B. (1879). Park Street West, Luton, Beds. M.D. Durh.  
w 1879-80. 1st Year Student, 2nd Coll. Prize.  
s 1880. 1st Year Student, 2nd Coll. Prize.  
w 1880-1. 2nd Year Student, The Musgrove Scholarship, Prosector's Prize.  
w 1881-2. 3rd Year Student, 2nd Coll. Prize; 2nd Tenure of Musgrove Scholarship.  
s 1882. 2nd Coll. Prize.  
w 1882-3. Treasurer's Gold Medal. A.H.P.
- TONKING, J. H. (1882). Chapel St., Camborne, Cornwall. M.B. Lond.  
w 1884-5. 3rd Year Student, Half 2nd and 3rd Coll. Prizes.  
w 1885-6. 4th Year Student, The Cheselden Medal.  
H.S., A.H.S., Clin. Asst. Ear Dept.
- TOOMBS, H. G. (1889). 24, Marloes Road, Kensington. Ophth. H.S., Clin. Asst. Skin and Throat Depts.
- TOPPING, J. P. (1879). Clarence House, Teddington, Middx. M.B., C.M. Glasg. D.P.H.
- TOTSUKA, K. (1881). Tokio, Japan. Deputy Inspector General of Hospitals, Imperial Japanese Navy. F.R.C.S.  
s 1882. 1st Year Student, 2nd Coll. Prize.  
w 1882-3. 2nd Year Student, Half Musgrove Scholarship and 1st Coll. Prize combined.  
w 1883-4. 3rd Year Student, 2nd Tenure of Half Musgrove Scholarship, with 3rd Coll. Prize.  
A.H.S.
- TOWNSEND, H. W. W. (1893). B.A. Cantab. Surg. R.N.
- TOWNSEND, M. (1865). 24, Upper Phillimore Place, Kensington.
- TREADWELL, O. F. N. (1878) Med. Off. H.M. Conv. Prison, Portland.
- TREDINNICK, E. (1871). Penlu House, Craven Arms, Salop.
- TREVES, E. (1866). 2, The Drive, Hove, Brighton.
- TREVES, W. K. (1862). 31, Dalby Square, Margate. F.R.C.S.  
1863. Modern Languages and Modern History, Coll. Prize.  
1865. 3rd Year Student, 2nd Coll. Prize Prosector's Prize.  
H.S.
- TREVITHICK, E. G. (1886). 24, Promenade, Cheltenham. M.A., M.D., B.C. Cantab.
- TREVOR, H. O. (1877). Major R.A.M.C.
- TRIBE, A. G. (1888). Treorchy, Rhondda Valley.
- TRUMAN, C. E. (1871). 23, Old Burlington Street. M.A. Cantab.; L.D.S., Dent. Surg. St. Thos. Hosp., Surg. Dent. Hosp. Lond.
- TUCKER, W. H. (1891). Indian Medical Service.
- TUKE, A. W. (1891). I.M.S. H.S., A.H.S.
- TURLE, A. (1870). Chipping Norton, Oxon.
- TURNER, F. C. 15, Finsbury Square. M.A., M.D. Cantab.; F.R.C.P., Phys. and Demonstr. of Path. Anat. Lond. Hosp. Res. Asst. Phys.
- TURNER, J. G. (1886). 12, George St., Hanover Square. F.R.C.S., L.D.S.

- TURNER, R. (1852). Lewes, Sussex.  
 TURNER, S. D. (1892). Lewes, Sussex.  
 Obst. H.P.
- TURNEY, H. G. (1884). 68, Portland Place. M.A., M.D., B.Ch. Oxon.; F.R.C.P., F.R.C.S., Asst. Phys., Physn. to Electrical Dept., Joint Lecturer on Pathology, Demonstr. of Morbid Anat. St. Thomas's Hosp. w 1885-6. 2nd Year Student, 2nd Coll. Prize. s 1886. 2nd Year Student, 2nd Coll. Prize. w 1886-7. 3rd Year Student, 3rd Coll. Prize. s 1887. 3rd Year Student, 1st Coll. Prize. w 1887-8. The Mead Medal.  
 Res. Asst. Phys., H.S., H.P., Demonstrator of Morbid Histology, Demonstr. of Pract. Med., Jt. Lecturer on Forensic Medicine.
- TYRRELL, F. A. C. (1892). B.A., M.B., B.C. Cantab.  
 Ophth. H.S.
- TYRRELL, W. (1872). 104, Cromwell Road, South Kensington. Sen. Anæsthetist St. Thos. Hosp. Tel.: "Tyrrell, London."  
 H.P., A.H.P., R.A.
- TYRRELL, W. (1850). Claremont, Gt. Malvern, & 122, Victoria St., Lond. 1853. Ophthalmic Essay, Mr. Dixon's Prize.  
 1854. Surgical Reports, President's Prize. H.S.
- TYRRELL, W. G. B. (1878). Claremont, Great Malvern. D.P.H.
- UMNEY, W. F. (1885). Heatherbell, 15, Crystal Palace Park Road, Sydenham. M.D. Lond.  
 w 1887-8. 2nd Year Student, 1st Coll. Prize. H.P., Jun. and Sen. Obst. H.P., Clin. Asst. Skin Dept.
- UNSWORTH, N. (1894). Paddington Infirmary, Harrow Road.  
 Clin. Assist. Skin Dept.
- USHER, C. H. (1888). 3, Bon Accord Square, Aberdeen. B.A., M.B., B.C. Cantab.; F.R.C.S. Edin.  
 Ophth. H.S., Clin. Asst. Throat Dept.
- USHER, T. S. (1855). Carlton House, Yeadon, Leeds. M.D. St. And.
- VALLANCEY, A. d'E. de. (1881). 1, Theresa Terrace, Ravenscroft Park.
- VARDY, J. L. (1852). 72 and 74, Commercial Road, Portsmouth, and Portchester, Hants.  
 1855. Practical Midwifery, Prize.
- VERDON, E. S. (1886). Morocco. M.A., M.B., B.C. Cantab.
- VERDON, W. (1870). 47, Brixton Hill. M.D. Brux.; F.R.C.S. Eng.  
 Med. Regist., H.S., Asst. Demonstr. of Anat.
- VICKERS, K. B. J. (1887). Wellington, Salop. M.B. Lond.
- VIVIAN, G. E. (1876). Staindrop, Darlington, Durham.
- VIVIAN, J. H. P. (1884). 22, West Kensington Mansions.
- VORES, A. (1874).
- VULLIAMY, J. T. (1889). French Hospital, Shaftesbury Avenue.
- WADD, F. J. (1861). Prospect House, Richmond, Surrey. M.B., C.M. Aberd., Surg. H.S.H. the Duke of Teck, Surg. Richmond Hospital. R.A.
- WADD, H. R. (1887). Prospect House, Richmond, Surrey.
- WADES, J. W. B. Sydney, New South Wales. M.D., N.Y.; M.D. Aberd.
- WADIA, D. R. (1880). 49, Sopori Bang Road, Parel, Bombay.
- WAGSTAFFE, W. W. (1861). Purleigh, St. John's Hill, Sevenoaks, Kent. B.A. Lond., F.R.C.S.  
 1862. Matriculation Examination--Classics and Mathematics, President's Prize. Physics and Natural History, Coll. Prize;  
 Modern Languages, &c., Coll. Prize;  
 1st Year Student, Treasurer's Prize.  
 1863. 2nd Year Student, 1st Coll. Prize.  
 1864. 3rd Year Student, 1st Coll. Prize;  
 Physical Society's 3rd Year's Prize;  
 Cheselden Medal;  
 Treasurer's Gold Medal.  
 Sen. Asst. Surg., Lect. on Anat. and Res. Asst. Surg. St. Thos. Hosp., Mem. Board of Exam. R.C.S.E., Exam. in Arts Apoth. Hall, and Med. Insp. H.M. Privy Council.
- WAINWRIGHT, A. S. R. (1878). Pembury Lodge, Tottenham, Middlesex.
- WAINWRIGHT, W. L. (1886). Brixworth, Northampton. M.B., B.S. Lond.  
 H.S., A.H.S., Sen. and Jun. Obst. H.P.
- WAITES, R. F. (1885). East Bank, Rotherham. Lect. on Hygiene Rotherham Sch. of Sci.
- WAKEFIELD, M. J. (1884). 47, Christchurch Rd., Doncaster. M.B. Durh.
- WAKLEY, T., Jun. (1875). 5, Queen's Gate. Joint Editor of *The Lancet*.
- WALCOTT, R. B. (1839). Barbados, W. Indies. M.D. Lond., F.R.C.S.
- WALKER, A. W. H. (1886). Argyle House, Station Parade, Harrogate. M.D. Brux.
- WALKER, J. N. (1891). I.M.S.  
 Clin. Assist. Throat Dept.
- WALKER, R. F. (1883). The Lammas, Esher, Surrey.
- WALKER, Robt. (1853). Budleigh-Salterton, Devon. M.D. St. And.
- WALKER, W. W. (1890). 33, West Gate, Peterborough. B.A., M.B., B.C. Cantab.
- WALLACE, A. C. (1876). 1, Grange Terrace, The Grange, Guernsey.

- WALLACE, C. S. (1886). St. Thomas's Hospital. M.B., B.S. Lond., F.R.C.S., Resident Asst. Surg.  
w 1887-8. 1st Year Student, Half 2nd Coll. Prize.  
s 1888. 1st Year Student, 2nd Coll. Prize.  
w 1888-9. 2nd Year Student, 1st Coll. Prize.  
w 1889-90. 3rd Year Student, 2nd Coll. Prize.  
Surgical Registrar, H.S., A.H.S., Sen. and Jun. Obst. H.P., Clin. Asst. Ear Dept.
- WALLACE, F. G. (1887). 104, Earl's Court Road. M.A., M.B., B.C. Cantab.  
Non-Res. H.P.
- WALLACE, J. (1842). Carshalton, Surrey (retired).
- WALLACE, L. A. R. (1891). 24, Norfolk Crescent, Hyde Park. B.A., M.B. Oxon.  
H.S., A.H.S., Clin. Asst. Ear & Skin Depts.
- WALLER, A. W. (1883). 31, London Road, Stroud, Gloucester. D.P.H.
- WALLER, W. B. 153, Seven Sisters Road, Holloway.
- WALLFORD, W. Brome-Walton, 61, Appach Rd., Josephine Avenue, Brixton Hill.
- WALTER, E. C. (1886). Market Place, Wallingford.
- WALTERS, F. R. (1875). 60, Welbeck Street, and Ferndale, Fairfield Road, Croydon. M.D., B.S. Lond.; M.R.C.P., F.R.C.S., Phys. N. Lond. Consump. Hosp. and City Disp.  
A.H.P., A.H.S.
- WARD, F. H. (1862). 8, Lyndhurst Villas, The Park, Ealing.  
1863. 1st Year Student, Treasurer's Prize.  
1864. 2nd Year Student, 1st Coll. Prize;  
Physical Society's 2nd Year's Prize.  
1865. 3rd Year Student, 1st Coll. Prize;  
Physical Society's 3rd Year's Prize;  
Cheselden Medal;  
Treasurer's Gold Medal.
- WARD, W. F. (1882). Bawtry, Yorks.
- WARD, W. T. (1876). Stanhope, Canada. M.D., C.M. Montreal.
- WARE, E. E. (1884). 161, Haverstock Hill. M.D., B.S. Lond.  
H.S., A.H.S.
- WARE, H. S. (1889). Holly Bank, King's Heath, Worc. B.A., M.B., B.C. Cantab.
- WARNER, A. (1891). Newfield House, Pelton Fell, Durham.
- WARREN, S. (1881). Kensington, Adelaide, S. Australia.
- WARRENER, R. (1850). Morborne, Peterborough. M.A. Cantab.
- WATERS, F. W. (1888). 23, Alma Road, Sheerness-on-Sea.
- WATERS, H. G. (1887). East Indian Ry. Co.
- WATERWORTH, E. A. (1865). 123, St. James' St., Newport, I.W. M.D. Aberd.
- WATKINS-PITCHFORD, W. (1887). St. Jude's Vicarage, St. George's Rd., Southwark. M.B. Lond. F.R.C.S. H.P.
- WAY, F. W. (1852). Elm Grove, Southsea.
- WAY, J. H. F. (1886). 45, Fawcett Road, Southsea.
- WAY, J. P. (1860). Mile End Villa, Landport.  
R.A.
- WEBB, F. (1890). Nelson Place, New-castle-under-Lyme.
- WEBBER, W. W. (1876). Crewkerne, Somerset.  
w 1876-7. 1st Year Student, 3rd Coll. Prize.
- WEBSTER, E. (1883). 49, Ditchling Road, Brighton.  
w 1883-4. 1st Year Student, 1st Coll. Prize.  
s 1885. 2nd Year Student, Half 2nd Coll. Prize.
- WEBSTER, J. H. Churchdown, Cheltenham.
- WEBSTER, M. H. (1858). Grafton, New South Wales.
- WEEKES, F. H. (1873). 28, Gillygate, York. F.R.C.S.  
w 1873-4. 1st Year Student, 3rd Coll. Prize.  
s 1874. 3rd Coll. Prize.  
w 1874-5. 2nd Year Student, 2nd Coll. Prize.  
s 1875. 3rd Coll. Prize.  
w 1875-6. 3rd Year Student, 3rd Coll. Prize.  
H.S., R.A.
- WELCH, C. H. (1859). 46, Upp. Rock Gdns., Brighton. F.R.C.S. Edin.
- WELCH, R. W. F. (1881). 61, Oxford Street, Southampton.
- WELCHMAN, E. (1869). Heckington, Lincs.  
H.P., H.S.
- WELLBY, S. (1892). Ladykirk, Gayton Rd., Harrow. M.B., B.Ch. Oxon.
- WELLS, A. E. (1877). Cuckfield, Sussex. M.D. Lond.  
w 1877-8. 1st Year Student, 2nd Entrance Science Scholarship.  
H.P., A.H.P., H.S., A.H.S., R.A.
- WELSFORD, G. F. (1880). St. Peter St., Tiverton, Devon. B.A., M.B. Cantab.
- WEST, C. J. (1879). The Grove, Fulbeck, Grantham.
- WEST, R. H. (1870). 10, Station Road, Taunton. M.A. Cantab.
- WESTON, G. H. (1882). Forest Lodge, Shirley, Hants. M.B., D.P.H. Cantab.
- WHATELY, S. H. (1886). Washington Durham.

- WHEATON, S. W. (1882). 76, The Chase, Clapham Common. M.D. Lond., M.R.C.P., D.P.H., Physician to the Royal Hospital for Children and Women. Med. Insp. Local Govt. Board.  
s 1885. 3rd Year Student, Half 1st and 2nd Coll. Prize.  
w 1885-6. 4th Year Student, The Mead Medal.  
H.P., R.A., Demonst. of Physics.
- WHEELER, C. (1854). 96, Kennington Park Road.
- WHEELER, P. C. E. D'Erf. (1883). English Hospital, Jerusalem. M.D. Brux., F.R.C.S. Edin.
- WHEELER, M. (1892). 377, New North Road, Islington.
- WHELPTON, E. S. (1881). Gonville House, Beckenham Rd., Beckenham. M.A. Cantab.
- WHERRY, G. E. (1869). Corpus Bldgs., Cambridge. M.A., M.B., M.C. Cantab., F.R.C.S., Surg. Addenb. Hosp., Lect. on Surg. Univ. Camb. Asst. Demonst. of Anat.
- WHICHELLO, E. (1892). 368, Dudley Road, Birmingham. B.A., M.B., B.C. Cantab.
- WHICHELLO, H. (1888). The Mount, Tattenhall, Cheshire.
- WHISHAW, R. R. (1883.) Larkstone, Birdhurst Road, South Croydon. B.A., M.B., B.C. Cantab., F.R.C.S., Surg. Croydon Hosp.
- WHISTLER, Rev. C. W. (1875). Stockland Vicarage, Bridgwater, Somers.
- WHISTON, P. H. (1882). Capt. R.A.M.C., D.P.H.
- WHITAKER, S. M. (1886).
- WHITE, C. H. (1872). 4, East Circus St., Park Row, Nottingham. R.A.
- WHITE, E. F. (1876). Westlands, 280, Upper Richmond Road, Putney. F.R.C.S.  
Anæsthetist., H.P., H.S., A.H.S.
- WHITE, F. (1889).
- WHITE, M. (1888). 100, Lewisham Rd.
- WHITEHEAD, E. T. (1886). Camperdown House, 118, Lavender Hill.  
w 1886-7. 1st Year Student, 2nd Coll. Prize.  
s 1888. 2nd Year Student, Half 2nd Coll. Prize.
- WHITEHEAD, J. L. (1860). Belgrave House, Ventnor, Isle of Wight. M.D. St. And.; M.R.C.P., J.P., Cons. Phys. Isle of Wight Co. Hosp. H.S.
- WHITMARSH, R. P. H. (1889). 75, Warwick Square, Brighton. M.D. Brux.,
- WHITTINGTON, R. (1894). County Hosp., Brighton. B.A., M.B., B.Ch. Oxon.  
Clin. Asst. Skin Dept.
- WICKHAM, G. H. (1885). Fleet, Hants. M.B., B.C. Cantab.  
H.P., Clin. Asst. Ear Dept.
- WIGHAM, W. H. (1884). South Molton, North Devon. M.B. Durh.
- WIGHTMAN, H. T. (1888). 580, Ecclesall Rd., Sheffield.
- WIGLESWORTH, J. (1878). Med. Superint. Co. Asyl. Rainhill, Lanc. M.D. Lond.; M.R.C.P., Lect. on Ment. Dis. Univ. Coll. Liverpool, Exam. in Ment. Dis. Victoria Univ.
- WILDE, L. (1883). Palace Chambers, Westminster. M.D. Durh.; M.R.C.P. Lond.; D.P.H.,; Med. Off. Health Bedfordshire County Council. Physician Croydon Boro' Hosp.
- WILES, J. (1848). Dep. Surg.-Gen. R.A.M.C. (retired).
- WILKINSON, C. J. (1879). 3, Osborne Villas, Osborne Road, Windsor.
- WILLIAMS, A. H. (1866). Lt.-Col. I.M.S. Bengal. M.B., C.M. Aberd.
- WILLIAMS, A. W. (1891). 4, Lansdowne Road, Hove. M.B., C.M. Edin., D.P.H.
- WILLIAMS, C. J. (1874). Brookside, Woodhall Spa, Linc.
- WILLIAMS, D. C. L. (1883).
- WILLIAMS, F. N. (1879). 181, High Street, Brentford.
- WILLIAMS, G. C. W. (1884). Mansion House Cham., 11, Queen Victoria St., and Dunstaffnage, 99, Wickham Rd., Brockley. F.R.C.S. Edin. Surg. City Orthop. Hosp.
- WILLIAMS, G. F. C. (1874).
- WILLIAMS, H. (1867). Moor Park, Harrogate, Yorks. (not in practice). J.P.  
1868. 1st Year Student, 2nd Coll. Prize.  
1869. 2nd Year Student, 3rd Coll. Prize.  
H.S.
- WILLIAMS, H. B. (1886). 78, Lewisham High Road. M.D. Brux.
- WILLIAMS, J. (1857). Swinton, Manchester. M.D. St. And.  
1859. Clinical Medicine, Prize.
- WILLIAMS, J. D. E. (1891). 23, Broadway, Barking.
- WILLIAMS, L. L. B. (1885). 8, York Street, Portman Square. M.B., C.M. Glasg.



- WILLIAMS, P. GARNONS (1891). R.N.  
 WILLIAMS, P. M. G. (1852). Parrag House, Newport, Pembroke. 1854. Practical Midwifery, Prize.  
 WILLIAMS, R. B. (1886). Aston Clinton Rectory, Tring.  
 WILLIAMS, R. M. (1879). 35, Kensington Park Gardens. M.D. Lond. w 1879-80. 1st Entrance Science Scholarship. H.P., A.H.P.  
 WILLIS, C. F. (1871). Maj. I.M.S. Bombay. M.D. Durh., M.R.C.P. Edin.  
 WILLOCK, E. H. (1886). 113, London Road, Croydon.  
 WILLS, B. S. (1892).  
 WILLSON, H. S. (1890). Station Rd. Byfleet, and Weybridge, Surrey. B.A. M.B., B.C. Cantab.  
 WILSON, A. (1880). 4, Coburg Terr., Anlaby Road, Hull.  
 WILSON, A. MARIUS (1884). Hof St., Cape Town. M.D., B.S. Durh., J.P.  
 WILSON, S. (1880). 262, Oldham Rd., Rochdale.  
 WINDLEY, W. (1882). Colston-Basset, Bingham, Notts. M.A. Cantab.  
 WINDSOR, C. W. (1891). Royston, Herts. M.A., M.B., B.C. Cantab. H.P.  
 WINDSOR, T. (1853). The Polygon, Ardwick, Manchester (retired).  
 WINSTON, W. B. (1887). Cleveland House, Bounds Green Road, Bowes Park. B.Sc. Lond. w 1887-8. 1st Year Student, 2nd Entrance Science Scholarship. w 1888-9. 2nd Year Student, 2nd Coll. Prize. s 1889. 2nd Year Student, 1st Coll. Prize. w 1891-2. Solly Medal and Prize. Demonstr. of Physiology. Clin. Asst. Skin Dept.  
 WINTERBURN, J. W. (1879). 3, Grant Road, Clapham Junction.  
 WISHART, J. (1876). London, Ontario, Canada. F.R.C.S. Edin.  
 WOAKES, A. B. (1880). 78, Harley Street. Surg. Lond. Throat Hosp.  
 WOAKES, E. (1854). 78, Harley St., Cavendish Square. M.D. Lond. Sen. Aur. Surg. Lond. Hosp., Lect. on Aur. Surg. Lond. Hosp. Med. Sch., Surg. Lond. Throat Hosp. 1857. 2nd Year Student, 2nd Prize Clinical Medicine, Prize. 1858. Essay on Neuralgia, Mr. N. Smith's Prize; Surgery and Surgical Anatomy, Cheselden Medal. H.S.  
 WOLFF, A. (1870). 4, Ilchester Gdns., Prince's Square, Bayswater.  
 WOOD, E. J. (1874). Yalding, Maidstone, Kent. B.A., M.B. Cantab.  
 WOOD, J. (1884). The Gables, The Common, Cranleigh, Surrey.  
 WOOD, R. (1841). Driffeld, Yorks. and The Red House, Robin Hood's Bay. M.D. St. And., J.P.  
 WOODHOUSE, T. J. (1854). M.D. F.R.C.S., Lond.  
 WOODHOUSE, T. P. (1874). Maj. R.A.M.C.,  
 WOODMAN, W. E. (1874). Oxford Lodge, Croydon. M.D. Durh. s 1875. 1st Year Student, 2nd Coll. Prize.  
 WORTH, E. H. (1888). St. Day, Scorrier, Cornwall.  
 WRENCH, E. B. (1887). Wrensich, Baslow, Derbyshire. M.B., B.C. Cantab.  
 WRENCH, E. M. (1850). Park Lodge, Baslow, and Bakewell, Derbyshire. F.R.C.S. 1851. Physical Society's Essay, Treasurer's 1st Year's Prize. Asst. R.A.  
 WRIDE, F. G. (1867). Wootton Bassett, Wilts.  
 WRIGHT, A. (1858). The Lodge, Romford, Essex.  
 WRIGHT, E. H. (1882). Capt. I.M.S. Madras. s 1885. 2nd Year Student, Half 2nd Coll. Prize.  
 WRIGHT, S. F. (1884). St. Peter's Lodge, Eltham Road, Lee, Kent. M.D. Lond.  
 WRINCH, E. P. (1888). Church Close, Boston, Lincs. M.B., B.S. Durh.  
 WROUGHTON, W. C. H. (1885).  
 WYMAN, W. S. (1851). Red Brae, 18, Putney Hill. M.D. St. And., F.R.C.S. 1852. Matriculation Examination, Scholarship.  
 WYSARD, A. T. (1887). Surg. R.N.  
 YEOMAN, C. (1883). Kipping House, Thornton, Bradford, Yorks. B.A., M.B., B.C. Cantab. R.A.  
 YEOMAN, S. (1885). Clark's Hill Prestwich, Manchester. B.A., M.B., B.C. Cantab.  
 YOUNG, B. M. (1893). Crowcombe, Taunton.  
 ZEIDAN, Selim. (1886).





